

(2) INFORMATION FOR SEQ ID NO:1866:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1866:

GGGGCCCCC

10

(2) INFORMATION FOR SEQ ID NO:1867:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1867:

GGGGCCCGTC T

11

(2) INFORMATION FOR SEQ ID NO:1868:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1868:

CCBGGGGBGB GBGGGCTGG

20

(2) INFORMATION FOR SEQ ID NO:1869:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 364 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1869:

CTCGGTBGB	CGCTCGBBC	TCGGGTGGGC	CGGTGGTGBG	CGGCGGCGBC	BCGCGGBBGG	60
CCCTGCGCGC	CGBGBTCBCC	TGCBGGGBGB	BGTBGGCTTG	CBGCBGGBCT	CCCBGGBGGG	120
TGBCBGCBCG	CBGTBGBGCT	BCCTCGTCCT	TCBTGGTBCC	GTCGGTGTGG	TGGCBGCGGC	180
TGTGTGTGBB	GGCGBGCTGG	GCCCCGTCTG	CTGCTCCTCG	TGCCGCCTCG	TCCTTCATGG	240
TACCGTCGGT	GTGGTGGCCT	CGGGTGGGCC	GGTGGTGGGG	CGCGCGCGCT	CGCGTGGCTC	300
CGGCTCTTCT	TTCCCGGCTC	CGTCGGCCCC	GGGGCCTTGG	TCTCCCTCGT	CCTTCBTGGT	360
BCCG						364

(2) INFORMATION FOR SEQ ID NO:1870:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1870:

GCBGCBGGBC

10

(2) INFORMATION FOR SEQ ID NO:1871:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1871:

CCCCGGCTCCG

10

(2) INFORMATION FOR SEQ ID NO:1872:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1872:

CGGCCCGGGG GCC

13

(2) INFORMATION FOR SEQ ID NO:1873:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1873:

CBCGCGG

(2) INFORMATION FOR SEQ ID NO:1874:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 200 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1874:

CTCGGTBGGC	GCGCTCGBBC	TGGGTGGGC	CGGTGGTGBG	CGGCGGCGBC	BCGCGGBBGG	60
CCCTGCGCGC	CGGBTCBCC	TGCBGGGBGB	BGTBGGCTTG	CBGCBGGBCT	CCCBGGGBGG	120
TGBCBGCBCG	CBGTBGBGCT	BCCTCGTCT	TCBTGGTBCC	GTCGGTGTGG	TGGCBGGGGC	180
TGTGTGTGBB	GCGGBGCTGG					200

(2) INFORMATION FOR SEQ ID NO:1875:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 530 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1875:

BCCGGCGGBG	CCGCCBGGGT	GGBCTGGGBG	TGGGTTTCTC	CCCCCGGTTT	TCBCCCBCCG	60
CGCTGBGCTC	BGCGCCTBBG	BCTGCTGTTT	CTGGBGCTCC	TTGGCBGGCC	BCBBBCBGC	120
GBGBGBBBBT	CBTGBGCBBB	TBBTCCBTTC	TGBBBBBBBG	GGBTCBBBBB	CCTCCCGTTC	180
CCCGTTCGCC	TGGCGCGCGC	TGCGGGTTCC	TCGTGGGTTT	CTCCCGCGCG	TTCTCCGGTC	240
TGTTGCCTTT	GTGGGCTTCT	TGTCTTTTGG	GCTGTTCTTT	TCCTGCTTGG	CGTCTTTTCC	300
TTTCTTTGTG	CTCGGTTGTG	GGTCCGCTGG	TCCTTTGCCC	TGTGTGTTTC	TGCTGCCCGT	360
TGCGCTGGCG	CGCGCTGCGG	GTTCTCTCGT	GGTTCTCTCC	CGCCGTTCTC	CGGTCTGTGT	420
CCTTTGTGGG	CTTCTGTGCT	TTTGGCTGT	TCTTTTCCTG	CTTGGCGTCT	TTTCCTTTCT	480
TTGTGCTCGG	TTGTGGGTCC	GCTGGTCCTT	TGCCCTGTGT	GTTTCTGCTG		530

(2) INFORMATION FOR SEQ ID NO:1876:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1876:

CCGGCGGBGC CGCCBGGGTG GBC

23

(2) INFORMATION FOR SEQ ID NO:1877:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1877:

CCGCCBGGG

9

(2) INFORMATION FOR SEQ ID NO:1878:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1878:

GGCGCGCGC

9

(2) INFORMATION FOR SEQ ID NO:1879:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1879:

GTGGGTCCGC

10

(2) INFORMATION FOR SEQ ID NO:1880:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 399 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1880:
GCCCTGTCTGG GCGGGAAGCC TCTCTCTCT CCCAGATCC GCGACAGGCC GCAGGCAAGA 60
ACCAGCGCAA CCAGGGCGCG TCCGCACAGA CTTGGAGGCG GCTGCATGCT GCTACCTGCT 120
CCAGAAGCGT CCGGTGGCCG CCGCGCCCTG TCGGGCGGGB BGCTCTCTC CTCTCCCCBG 180
BTCCGCGBCB GGCGGCBGGC BBGBCCBGC GCBCCBGGC CGCGTCCGB CBGBCTTGG 240
GGCGGCTGCB TGCTGCTBCC TGCTCGGGCG GBBGCTCC GGTGGCCGCC GCGCGTCCG 300
TGGCGCCGC GCCTCTCTC TCTCCCGTG GCCCTGTCTG GCGGGTCTCT CCGTCTCTG 360
TCCTTTCTT TTGCTGTCTT GTCTCCCGT CTCTGCTTT 399

(2) INFORMATION FOR SEQ ID NO:1881:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1881:

CGGGCGGGBB GCC

13

(2) INFORMATION FOR SEQ ID NO:1882:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1882:

CGGGCGGG

8

(2) INFORMATION FOR SEQ ID NO:1883:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1883:

CCGCBCBGB

10

(2) INFORMATION FOR SEQ ID NO:1884:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 144 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1884:

GCCCTGTCTGG GCGGGAAGCC TCTCTCTCT CCCAGATCC GCGACAGGCC GCAGGCAAGA 60
ACCAGCGCAA CCAGGGCGCG TCCGCACAGA CTTGGAGGCG GCTGCATGCT GCTACCTGCT 120
CCAGAAGCGT CCGGTGGCCG CCGC 144

(2) INFORMATION FOR SEQ ID NO:1885:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 144 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1885:

GCCCTGTCTGG GCGGGBBGGC TCTCTCTCT CCCBGTCC GCGBCBGGCC GCBGGCBGB 60
BCCBGCGCB CCBGGGCGCG TCCGCBGB CTTGGBGGCG GCTGCBTGCT GCTBCCTGCT 120
CCBGBBGGT CCGGTGGCCG CCGC 144

(2) INFORMATION FOR SEQ ID NO:1886:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 784 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1886:

GTCTGTCTCT CCCGTCTCT CCCACTGCTT CTCCCGGGG CTTCCCCGGC TTCGGGTGGC 60
CGGTGTCCCG GGCTCCGCG CCGCGCGGC TTCGGTGGC GGTGGGTGGC GCGGGCTGCC 120
GGTCCGCGC GCGCCTGGG CCCTGTGCT GCTTTTTGCT TGTTCCGTT TGGCTGCTCC 180
GGTCTGTGTT GTGGTTGTT TGTTCTTCT TGGGTGTGG CCTTGGGTT TTGGCTGTGG 240
GCCCTTTGGG GCCTTGGCTT CTGGCTCGT TGCTCTCCC GTCTCTCCC ACTGCTTCTC 300
CCGGGGGCTT CCGCGGCTT GGTGGCCGG TGTCCGGGC TCCGGCGCG CCGCGGCTTC 360
GGCTGCGGTT GGTGGCGCG GGCTGCCGG TCCGCGCGC GCCTGGGCC TTGTGCTGCT 420
TTTTGCTTGT TCCGTTCTGG CTGCTCCGG CTGTGTTGT GTTGTGTTG TTCTTCTTGG 480
GTGTGGGCT TGCGGTTTG GCTGTGGGC CTTTGGGCT TTGGCTTCT GCTCCATCCA 540
CATGATTGCT TAGATTGTG CTGTATCTC CAGGATTATC ACTGATTACA CATCCAACCA 600

GTGCCAGGCA AAAGGATGCC CTGAGGCAAA GGGTTTCCAT CTTGAGGCAA ATTTGAGGAC 660
 BTCCBCBTGB TTGCTTBGBT TTGTGCTGB TCTCTCBGGB TTBTCTBCTGB TTBCBCBTCC 720
 BBCCBG TGCC BGCCBBBGG BTGCCCTGBG GCB BBGGGTT TCCBTCTTGB GGCBBBTTC 780
 BGGG 784

(2) INFORMATION FOR SEQ ID NO:1887:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1887:

GBGGCB BGGG G

11

(2) INFORMATION FOR SEQ ID NO:1888:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1888:

GCCBGGCCBBB BGGG

14

(2) INFORMATION FOR SEQ ID NO:1889:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1889:

CGCCTGGGCC C

11

(2) INFORMATION FOR SEQ ID NO:1890:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 349 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1890:

CTGCTGBGGC TTGGGTCTCC GGGCBTTCT CTGCBGBBGB TGCTCBBBGG GCTCCGGCBG 60
 TTCCTCCTTG BTCTGGTCGC TGTCGTBCCB GTCGBBCCBG TBBTTCBGT CBTCBTTGGC 120
 TCCTBTCTTCT TCTGCBBCB GCTGBGTGGB GBCBGBBBB BBGBCTGCCB BGGCCBCGBG 180
 GBTTTTCBTG TTGBTTTTG CGBCGGBCBG TCCCGCGGGG TGCTGAGTTT CTCTGGTTCC 240
 TCCGBGCGCB CGTGGTCGCT CCGCGTTTCT CTGGTTCCTC CGGTCCCGCG GGGTGCTGTC 300
 TGGTGCTGT CGTGGCTTGG GTCTCCGGG GTTTCCTTC CTTTCCGC 349

(2) INFORMATION FOR SEQ ID NO:1891:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1891:

CTCCGGGCGB

10

(2) INFORMATION FOR SEQ ID NO:1892:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1892:

GGCCBCBGG

10

(2) INFORMATION FOR SEQ ID NO:1893:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1893:

GGGTCTCCGG GCG

13

(2) INFORMATION FOR SEQ ID NO:1894:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1894:
GGGTCTCCGG GCGG

14

(2) INFORMATION FOR SEQ ID NO:1895:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 250 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1895:

CTGCTGBGGC	TGGGTCTCC	GGGCGTTCT	CTGCBGBBGC	TGCTCBEECC	GCTCCGGCCG	60
TTCCTCCTTG	BTCTGGTCGC	TGTCGTBCCB	GTCGGBCCBG	TBBTTCBGBT	CBTCBTTGGC	120
TCCTBTTTCT	TCTGCBBCB	GCTGBGTGGB	GBCBBGBBBB	BBGBCTGCCB	BGGCCBCGBG	180
GBTTTTCBTG	TTGGBTTTGT	CGBCGGBCBG	TCCCGCGGGG	TGCTGAGTTT	CTCTGGTTCC	240
TCCGBGCGCB						250

(2) INFORMATION FOR SEQ ID NO:1896:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 662 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1896:

GGGCTBBGBT	GBTCCBCBTC	BCTBCCBCGT	TGCCCBCCBC	BGBGGTCBCC	BCBBTGBCCG	60
TGTBGGCBGC	TGCCBBBGG	BCBBTTTGCC	BGGCTGGTTG	CBGGBBCTGB	TTGGGTTCCG	120
BGGTGTBTGT	GGBGTGTGTT	GGGGBGBGGT	CTGBGTCCBC	CGGBBGGBCG	TTBTCCBTTT	180
CGBBGCTBGG	CGGTBBBGCC	CTBCTBTCTG	TBCBCBCCCC	CCCTCTGCBG	CBGBGTCCTG	240
TCGTGGCGCC	TGGGGCTCBG	GGTCCGGGCT	AAGATGATCC	ACATCACTAC	CACGTTGCCC	300
ACCACAGAGG	TCACCACAAT	GACCGTGTAG	GCAGCTGCCC	AAAGGACAAT	TTGCCAGGCT	360
GTTTGACAGA	ACTGATTGGG	TTCCGAGGTG	TTAGTGGAGA	TGTTGGGGA	GAGGTCTGAG	420
TCCACCGGGA	GGACGTTATC	CATTTCAAG	CTAGGCGGTA	AAGCCCTACT	ATCTGTACAC	480
AACCCCTCTC	TGCAGCAGAG	TCCTGTCTGT	GCGCCTGGGG	CTCAGGGTCC	GTCCTGTCGT	540
GGCGCCTGGG	GCTCTTCTTT	TGTGGGCTCT	TTGGTGGCTG	TGGCTGTGGT	CTCTGTGGTT	600
GCTGCCCTGG	GTCTGGGGGT	GTGGCCTTGG	GGCCGTCTC	TGGCTCCTCC	TCGTGGGCCC	660
CC						662

(2) INFORMATION FOR SEQ ID NO:1897:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1897:
GGGBGGBCG

9

(2) INFORMATION FOR SEQ ID NO:1898:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1898:
GGGTCCG

7

(2) INFORMATION FOR SEQ ID NO:1899:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1899:
GGGCCCCC

8

(2) INFORMATION FOR SEQ ID NO:1900:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 567 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1900:
GGBGCTGBTB CTGCBGATTT CBGBGGGBBG BBCCCTGBTB CTCBCCBGCT TCBGCTCTGG 60

BGCBCBBBG	BBBGBGCBGC	BGGGGGBGBG	GBBGBBGBGC	CBTCTTCCCB	GBGBGGCTGC	120
CTGBGCBBBT	GCTGGTTTTT	CTTTCCBGTC	TTGGGTTTTB	TBBCTCCCBG	BBGGCBBGBG	180
BGGGGCBBGG	CGTTTTCTTC	TCTCGCTGGT	TTTCCTTTCC	TGGCAGTGGG	TGGGGGTGGG	240
GGTGGGGTGG	CTTCCTTGTT	CCTGGGGGTG	TCCTCTTGCT	CTGGGCTTTT	CTCCCTTTT	300
CCTCTCTGTC	TGTTTTCTTG	GGGCTCTCCT	CTGTCTCTGT	GTCCTTGCCC	TGGCCCTCTT	360
CCCTCTCTG	TCTCCTGTCC	CTGTGTTCGG	CCCGTCTTCC	CTCTCCTGAC	CTCCTTTTCC	420
TCCGCTGGGT	GGGGCCCTGC	CTGTTCTCTG	CTCCCTGGCT	TGGGGTTTCT	TCTGTGTGTC	480
TTCTTCTCT	GTTGGCTGGC	TTTCTCCTTC	TTTTGTCTTC	CTGGGTGCCC	CTTCTTCCTT	540
TCTGGGTCC	TTGGTGCTTG	GGCTGGG				567

(2) INFORMATION FOR SEQ ID NO:1901:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1901:

GGBGCBGBG

10

(2) INFORMATION FOR SEQ ID NO:1902:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1902:

GBBGCBCG

8

(2) INFORMATION FOR SEQ ID NO:1903:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1903:

GGGGCBBGGC G

11

(2) INFORMATION FOR SEQ ID NO:1904:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 190 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1904:

GGBGCTGBTB	CTGCBGATTT	CBGBGGGBG	BBCCCTGBTB	CTCBCCBGCT	TCBGCTCTGG	60
BGCBCBBBG	BBBGBGCBGC	BGGGGGBGBG	GBBGBBGBGC	CBTCTTCCCB	GBGBGGCTGC	120
CTGBGCBBBT	GCTGGTTTTT	CTTTCCBGTC	TTGGGTTTTB	TBBCTCCCBG	BBGGCBBGBG	180
BGGGGCBBGG						190

(2) INFORMATION FOR SEQ ID NO:1905:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2028 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1905:

GCGTCTTGGG	GTGCBGGGCC	CBTCTGCTG	CGCCTGGGCG	CTGCTGTGCG	TCCGTCTGCT	60
GGGGGGCCCG	GGTGGCTGGG	CCCTGCTTGC	CGCACGACCC	CGGGCCGACC	CGAGGCTCGG	120
GGGGCTGTGT	TCTGGCGCTG	GTGGGCTTGG	GCCCTCTGCG	GGGCTGGGTT	TCCTGCTGCG	180
CCTGGGCGCT	GGCGTCTTGG	GGTGC GGCG	CGGGGGCCCG	GGGGGGCCGCT	GTTGCTGGGC	240
CTGGGGGTGC	CTGTGGCTGC	CGGTTGCCCC	GGTTGGTGGC	GCCGTCTGCG	TGCCGGTCTG	300
TGGCTGGGTC	CCCCCGCCCG	TTTCTTGGGG	TCCGCGTGGG	GTGCTCCGGT	TCCTGCTGCC	360
GCTGCTGCCT	TGTCTTTCCG	GCCGTGGCGG	CGTGGTGGTC	CGCCCCCCTT	GGCTCTTGGC	420
TCCGGGTCTG	GCTGGTTGCC	GGTGCCCTTG	GCGGCGGTCT	TCTTCTGGGT	GGCTCTGGGC	480
CCGGCCGCTC	TCCGGGCTCT	CGTGTTCGCT	CTTGTGCTGT	TCCGGCCGCT	CCTTCTCTTT	540
CCGGCCGCTC	CGCTCCCCGC	CCGCTGCTCG	CCCTGGCCCG	GCCTCTCTCT	GGCCGCTGTC	600
TCCGGCCGCG	GCCTTGGCGC	TCCGTTTGGG	CTCGTGGGCC	CCTCTTCCCG	CCCTCGGCCT	660
GGGCGCTCTC	TTCCGCTGTG	GCTGTGGGCC	CTCGTGGGCC	CCTCTTGGCC	TCCGGTGTCC	720
TGTGGTCCCC	CGGCTGGTGG	CCGGGCGCGT	TGGGCGGGCG	TGGGCGGGCG	CGGGTCTCTC	780
GGGCTGCCCT	TCTCCGCGCG	GGGTCCCGCG	CTCCTGCTGT	TCCCTGGGCT	CTTCTGCCTC	840
TCTCCTGGGT	GGGTGCTGGG	TGCCGGGCTG	CCCCGCGCTG	CTGGGCGTTC		900
TGCGGTCTTG	GGGTGCTCTG	TGGCCCGGCT	CGTGTGCGCC	TCCGTGCGCC	GTCGCGGCTC	960
TGCTCCCTTC	CTGGGTGCGC	GGCGGGCTGG	TCCTGGCGTT	TTGCTCCTTC	CTGGGCGTCT	1020
TGGGTGCBG	GGCCCBCTCT	GCTGCGCCTG	GGCGCTGCTG	TGCGTCCGTC	TGCTGGGGGG	1080
CCGGGGTGGC	TGGGCCCTGC	TTGCCGCACG	ACCCCGGGCC	GACCCGAGGC	TCCGGGGGCT	1140

GTGTTCTGGC	GCTGGTGGGC	TGGGCCCCCT	CTGGGGGCTG	GGTTTCCTGC	TGGGCTGGG	1200
CGCTGGCGTC	TTGGGGTGCG	GGGCCGGGGG	GCCGGGGGGC	CGCTGTTCGT	GGGCTGGGG	1260
GTGCTGTGG	CTGCCGGTTG	CCCCGGTTGG	TGGCGCCGTC	CTGCTGCCGG	TCGTTGGCTG	1320
GGTCCCCCG	CCCGTTTCCT	GGGGTCCGCG	TGGGGTGCTC	CGGTTCCCTG	TGCCGCTGCT	1380
GCCTTGTCTT	TCCGGCCGTG	GCGGCGTGGT	GGTCCGCCCC	CCCTGGCCTT	CTGCTCGGGG	1440
TCTGGCTGGT	TGCCGGTGCC	CTTGGCGGCG	GTCTTCTTCC	TGGTGGCTCT	GGGCCCCGGC	1500
GGTCTCGGGC	GTCTCGTGTT	CGCTCTTTGG	CTGTTCCGGC	CGCTCCTTCC	TCTTCCGCGC	1560
CCGCCGCTCC	CCGCCCGCTC	GTCGCCCTGG	CCCGGCCTCC	TCCTGGCCGC	TGTCTCGGGC	1620
GGCGGCCTTG	GCGTCCGCTT	TGGGGCTGCC	TCTGGCGCTT	CCGGCCCTCG	GCCTGGGCGC	1680
TCTCTTCCGC	CTGTGCTGGT	GGCCCTCGTG	GGCCCTCCTC	GGCTCCGGT	GTCTGTGGT	1740
CCCCCGGCTG	GTGGCCGGGC	CGGTTGGGCG	GGCGTGGGCG	CCGGCGGGTC	CTCCGGGCTG	1800
CCCTTCTCCG	CCGGGGGTCC	CGCGCTCCTG	CTGTTCCCTG	GGCTCTCTG	CCTCTCTCCT	1860
GGTGGGGTGC	TGGGTGCCGG	GGTCTCCGGG	CTTGCCCCGC	GCTGTGGGGC	GTTCTGCGGT	1920
CTTGGGGTTG	TCTGTGGCCC	CGCTCGTGTC	GCCCTCCGTC	GCCCGTCGCC	GGCCTCGTCC	1980
CCTCCTGGGT	GCGCGGCGGG	CTGGTCTGG	CGTTTTGCTC	CTTCCTGG		2028

(2) INFORMATION FOR SEQ ID NO:1906:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1906:

GCGGGGCGG

9

(2) INFORMATION FOR SEQ ID NO:1907:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1907:

CGGGGGGCG

8

(2) INFORMATION FOR SEQ ID NO:1908:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1908:

GCGCGGCGGG C

11

(2) INFORMATION FOR SEQ ID NO:1909:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1909:

GCGTCTTGGG GTGCBGGGCC CBTCTGCTG CGCTGGGCG CTG

43

(2) INFORMATION FOR SEQ ID NO:1910:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 535 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1910:

CTGCCCCBGT	TTTTGTCCT	CBCBTGCCGT	GGGGBGGBCB	BTGGCTGCCT	CCCCGGGGTT	60
TCTGCTGCTT	GCTGCTTCTT	TCCCGTCTCC	CTTCTTTCCC	GTCTCCTTTT	TGCCTCTTTG	120
GGTTCCTGTT	GTTTCTGGCC	TGCTTGGTGG	CGGCTTGTGC	GTTTCCTCTC	TCTTCTCTTG	180
GGTCTCCGCT	TCTCGTCTTG	CCTTTTCTTG	TCTCTGTGCG	GCCGTTCTCT	CTCCGGGCGT	240
CTCCTGCCCT	GTGCTGTTTG	CCTCGGGTGG	TGCGGGTCCC	GGTGTCCCC	CGGCGGGCCG	300
GCTGGTTGCC	TGGGCCTGTC	TGGTGGGGTG	TGGGGCCGCT	GGGTGGGGGG	TGTGGTGGGC	360
TCTTCTGTGG	CCTGTGGGGC	TGTTGGTGTG	TCTGTGGGCG	TGTGCTGGGT	CTTGGGGCTT	420
CCTCCCTTGT	GCTGGGTGCG	GCCTCCCCGC	CCCCCTTCTG	GGCCGGTGGC	CTGGCTCCTT	480
GTGGGCGCTT	CTGGCTCTTG	CCCTGTCCTT	CTTCGCCTCG	TGGCTGCTGG	GCTGC	535

(2) INFORMATION FOR SEQ ID NO:1911:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1911:
CCCCGGGG 8
- (2) INFORMATION FOR SEQ ID NO:1912:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1912:
GGGGCCGCTG GG 12
- (2) INFORMATION FOR SEQ ID NO:1913:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1913:
GGGGGTGTGG 10
- (2) INFORMATION FOR SEQ ID NO:1914:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1914:
CTGCCCCBGT TTTGTCTCT CBCBTGCCGT GGGGBGGBCB BTGG 44
- (2) INFORMATION FOR SEQ ID NO:1915:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 756 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1915:
CGGCCCTTCT CACTGGAGGC ACCGGGCAGT CCTCCATGGG AGGGTTGGGC TTGGCCGGGG 60
CTGCCCCGTG CCTCCTCTTG GCTGGTCCCT CGTTGTCCTT GGGCCCCGCT CCCGCTGCTC 120
GGCCTCCGTG TTCTTTGGCC TCTTGCTCCG CTTGCTGTCT TGTCCTGCTC CCTCCTCGCT 180
TGCGTTTCCC TCTTCCTTGT CTTCAGGCC TTCCTCGCT TCCGCTGCTG GGGCCCCGCG 240
CGGGGGGGCG CTCGGCTCCG CGGCTTCCTC CCCGGCTGGG GGGTCCTGGT CTCGGGGGCC 300
TGCGGCTCGC GGGCTCGGGG CTGCGTCCGC CGCGCGCGGC GTCCGCGGTG GGTGGCGCTG 360
TCCGCGCGTG GTGTGTCTCC GTTCTCGTCC TGCGCCGTCC TGGTCTGCCC GTGGGTCTCT 420
GGGCGTGGTG GGGGGCGTCT GGTGCCTCGT CTGCCCCGTG GGGCTTCGGG CTCGGGGCTG 480
TTCGTCCCCC CTGCCGCTCT GTGGCCTCCG GGGCTCCTCG TTTTCGCTGC TTCGGGTGTC 540
CTTCTCGGCG TGTGGCCCCG GGTCCCGGCC CTGCTGGGCT GGGCGGGGTC GCTGCCCTGG 600
GCTTCTGGCC CGTCTGGTTG TCTGTCCGTG CTTGTCTCGG GTTCTTGSCC TCTGTGCTGG 660
GCGCTTCTCT GCCTCCTGCT CCGCCCTCCT GGTGGCTCGG CTGGGGGTGC CCGTGCGGGG 720
GTGGGTGTGG GGTGTTTTCG GGGTCTCTCC CTTCCT 756
- (2) INFORMATION FOR SEQ ID NO:1916:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1916:
GGGCGGGGTC GC 12
- (2) INFORMATION FOR SEQ ID NO:1917:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1917:
GCGCCGTCC 9
- (2) INFORMATION FOR SEQ ID NO:1918:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1918:
GGGCGTGGTG G 11

(2) INFORMATION FOR SEQ ID NO:1919:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 43 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1919:
CGGCCCTTCT CACTGGAGGC ACCGGGCAGT CCTCCATGGG AGG 43

(2) INFORMATION FOR SEQ ID NO:1920:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 302 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1920:
GTTTCATCTT GGCTTTATCC TCTCCCCTTG TTCCTCCCCT CTCCTGCTCT GGRGTCTCCT 60
CTTCCCTCCC TCCCCTGCCG TGTGTCTGT GGGTGTGCTT TCGCTCTTGT TGCCCTGGGC 120
CCTTCCCTGC TGGGGGGGAG TTTCATCTTG GGTTCBTCT TGGCTTTBTC CTCTCCCCTT 180
GTTCCCTCCC TCTCTGCTC TGGGTCTCC TCTTCCCTCC CTCCCCTGCC GTGTTGTCTG 240
TGGGTGTCGT TTCGCTCTTG TTGCCCTGGG CCCTTCCCTG CTGGGGGGGB GTTTCBTCTT 300
GG 302

(2) INFORMATION FOR SEQ ID NO:1921:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1921:
GGGGGAGTT 9

(2) INFORMATION FOR SEQ ID NO:1922:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1922:
GCCCTGGGCC C 11

(2) INFORMATION FOR SEQ ID NO:1923:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 151 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1923:
GTTTCATCTT GGCTTTATCC TCTCCCCTTG TTCCTCCCCT CTCCTGCTCT GGRGTCTCCT 60
CTTCCCTCCC TCCCCTGCCG TGTGTCTGT GGGTGTGCTT TCGCTCTTGT TGCCCTGGGC 120
CCTTCCCTGC TGGGGGGGAG TTTCATCTTG G 151

(2) INFORMATION FOR SEQ ID NO:1924:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 151 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1924:
GTTTCBTCTT GGCTTTBTCC TCTCCCCTTG TTCCTCCCCT CTCCTGCTCT GGRGTCTCCT 60
CTTCCCTCCC TCCCCTGCCG TGTGTCTGT GGGTGTGCTT TCGCTCTTGT TGCCCTGGGC 120
CCTTCCCTGC TGGGGGGGBG TTTCBTCTTG G 151

(2) INFORMATION FOR SEQ ID NO:1925:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 7 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1925:
GGGGGBG 7

508

- (2) INFORMATION FOR SEQ ID NO:1926:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 10 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1926:
GTGGGTGTCC 10
- (2) INFORMATION FOR SEQ ID NO:1927:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 91 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1927:
CCGTGTTGTC BGTGGTGCTG CCCGTTTGBG GTBTGGCGCT CCBCCBBTTC CCTTTTCTCC 60
TTGTTTTCCG TTTCTCTTGC CGTCTGTGGT T 91
- (2) INFORMATION FOR SEQ ID NO:1928:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1928:
CCCGTTTGBG GTBTGGC 17
- (2) INFORMATION FOR SEQ ID NO:1929:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1929:
GCTCCBCCBB TTCCCTTTTC TCC 23
- (2) INFORMATION FOR SEQ ID NO:1930:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1930:
TTGTTTTCCG TTTCTCTTG 19
- (2) INFORMATION FOR SEQ ID NO:1931:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1931:
CCGTCGTGTTG TT 12
- (2) INFORMATION FOR SEQ ID NO:1932:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1932:
CCCGTTTGAG GTATGGC 17
- (2) INFORMATION FOR SEQ ID NO:1933:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1933:
GCTCCBCCAA TTCCCTTTTC TCC 23
- (2) INFORMATION FOR SEQ ID NO:1934:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1934:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC GGCC 34
- (2) INFORMATION FOR SEQ ID NO:1935:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1935:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC GGC 33
- (2) INFORMATION FOR SEQ ID NO:1936:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1936:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC GG 32
- (2) INFORMATION FOR SEQ ID NO:1937:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1937:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC G 31
- (2) INFORMATION FOR SEQ ID NO:1938:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1938:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC 30
- (2) INFORMATION FOR SEQ ID NO:1939:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1939:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCCCC 29
- (2) INFORMATION FOR SEQ ID NO:1940:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1940:
GGGCCCCBGCC CCGCCGCCTT TTCTBGCC 28
- (2) INFORMATION FOR SEQ ID NO:1941:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1941:
GGGCCCCBGCC CCGCCGCCTT TTCTBGC 27
- (2) INFORMATION FOR SEQ ID NO:1942:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1942:
GGGCCCCBGCC CCGCCGCCTT TTCTBG 26

(2) INFORMATION FOR SEQ ID NO:1943:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1943:
GGGCCCCBGCC CCGCCGCCTT TTCTB 25

(2) INFORMATION FOR SEQ ID NO:1944:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1944:
GGGCCCCBGCC CCGCCGCCTT TTCT 24

(2) INFORMATION FOR SEQ ID NO:1945:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1945:
GGGCCCCBGCC CCGCCGCCTT TTC 23

(2) INFORMATION FOR SEQ ID NO:1946:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1946:
GGGCCCCBGCC CCGCCGCCTT TT 22

(2) INFORMATION FOR SEQ ID NO:1947:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1947:
GGGCCCCBGCC CCGCCGCCTT T 21

(2) INFORMATION FOR SEQ ID NO:1948:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1948:
GGGCCCCBGCC CCGCCGCCTT 20

(2) INFORMATION FOR SEQ ID NO:1949:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1949:
GGGCCCCBGCC CCGCCGCCT 19

(2) INFORMATION FOR SEQ ID NO:1950:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1950:
GGGCCCCBGCC CCGCCGCC 18

- (2) INFORMATION FOR SEQ ID NO:1951:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1951:
GGGCCCCBGCC CCGCCGC 17
- (2) INFORMATION FOR SEQ ID NO:1952:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1952:
GGGCCCCBGCC CCGCCG 16
- (2) INFORMATION FOR SEQ ID NO:1953:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1953:
GGGCCCCBGCC CCGCC 15
- (2) INFORMATION FOR SEQ ID NO:1954:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1954:
GGGCCCCBGCC CCGC 14
- (2) INFORMATION FOR SEQ ID NO:1955:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1955:
GGGCCCCBGCC CCG 13
- (2) INFORMATION FOR SEQ ID NO:1956:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1956:
GGGCCCCBGCC CC 12
- (2) INFORMATION FOR SEQ ID NO:1957:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 11 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1957:
GGGCCCCBGCC C 11
- (2) INFORMATION FOR SEQ ID NO:1958:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 32 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1958:
GGCCCCBGCCC CGCCGCTTT TCTBGCCCCG GC 32
- (2) INFORMATION FOR SEQ ID NO:1959:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1959:
GCCCBGCCCC GCCGCCTTTT CTBGCCCCGG C 31
- (2) INFORMATION FOR SEQ ID NO:1960:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1960:
CCCBGCCCCG CCGCCTTTTC TBGCCCCGGC 30
- (2) INFORMATION FOR SEQ ID NO:1961:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1961:
CCBGCCCCGC CGCCTTTTCT BGCCCCGGC 29
- (2) INFORMATION FOR SEQ ID NO:1962:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1962:
CBGCCCCGCC GCCTTTTCTB GCCCCGGC 28
- (2) INFORMATION FOR SEQ ID NO:1963:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1963:
BGCCCCGCCG CCTTTTCTBG CCCCCGC 27
- (2) INFORMATION FOR SEQ ID NO:1964:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1964:
GCCCCGCCGC CTTTCTBGC CCCGGC 26
- (2) INFORMATION FOR SEQ ID NO:1965:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1965:
CCCCGCCGCC TTTTCTBGCC CCGGC 25
- (2) INFORMATION FOR SEQ ID NO:1966:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1966:
CCCCGCCCT TTTCTBGCCC CGGC 24
- (2) INFORMATION FOR SEQ ID NO:1967:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1967:
CCGCCGCCTT TTCTBGCCCC GGC 23
- (2) INFORMATION FOR SEQ ID NO:1968:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1968:
CGCCGCCTTT TCTBGCCCCG GC 22
- (2) INFORMATION FOR SEQ ID NO:1969:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1969:
GCCGCCTTTT CTBGCCCCG C 21
- (2) INFORMATION FOR SEQ ID NO:1970:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1970:
CCGCCTTTTC TBGCCCCGGC 20
- (2) INFORMATION FOR SEQ ID NO:1971:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1971:
CGCCTTTTCT BGCCCCGGC 19
- (2) INFORMATION FOR SEQ ID NO:1972:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1972:
GCCTTTTCTB GCCCCGGC 18
- (2) INFORMATION FOR SEQ ID NO:1973:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1973:
CCTTTTCTBG CCCCCGC 17
- (2) INFORMATION FOR SEQ ID NO:1974:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1974:
CTTTTCTBGC CCCGGC 16
- (2) INFORMATION FOR SEQ ID NO:1975:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1975:
TTTTCTBGCC CCGGC 15

- (2) INFORMATION FOR SEQ ID NO:1976:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1976:
TTTCTBGCCC CGGC 14
- (2) INFORMATION FOR SEQ ID NO:1977:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1977:
TTCTBGCCCC GGC 13
- (2) INFORMATION FOR SEQ ID NO:1978:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1978:
TCTBGCCCCG GC 12
- (2) INFORMATION FOR SEQ ID NO:1979:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1979:
CTBGCCCCGG C 11
- (2) INFORMATION FOR SEQ ID NO:1980:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1980:
GCGBGGCTGT CBCCTCGCTG GGCCC 25
- (2) INFORMATION FOR SEQ ID NO:1981:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1981:
GCGBGGCTGT CBCCTCGCTG GGCC 24
- (2) INFORMATION FOR SEQ ID NO:1982:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1982:
GCGBGGCTGT CBCCTCGCTG GGC 23
- (2) INFORMATION FOR SEQ ID NO:1983:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1983:
GCGBGGCTGT CBCCTCGCTG GG 22
- (2) INFORMATION FOR SEQ ID NO:1984:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1984:
GCGBGGCTGT CBCCTCGCTG G 21
- (2) INFORMATION FOR SEQ ID NO:1985:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1985:
GCGBGGCTGT CBCCTCGCTG 20
- (2) INFORMATION FOR SEQ ID NO:1986:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1986:
GCGBGGCTGT CBCCTCGCT 19
- (2) INFORMATION FOR SEQ ID NO:1987:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1987:
GCGBGGCTGT CBCCTCGC 18
- (2) INFORMATION FOR SEQ ID NO:1988:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1988:
GCGBGGCTGT CBCCTCG 17
- (2) INFORMATION FOR SEQ ID NO:1989:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1989:
GCGBGGCTGT CBCCTC 16
- (2) INFORMATION FOR SEQ ID NO:1990:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1990:
GCGBGGCTGT CBCCT 15
- (2) INFORMATION FOR SEQ ID NO:1991:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1991:
GCGBGGCTGT CBCC 14
- (2) INFORMATION FOR SEQ ID NO:1992:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1992:
GCGBGGCTGT CBC 13
- (2) INFORMATION FOR SEQ ID NO:1993:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1993:
GCGBGGCTGT CB 12
- (2) INFORMATION FOR SEQ ID NO:1994:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1994:
GCGBGGCTGT C 11
- (2) INFORMATION FOR SEQ ID NO:1995:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1995:
GCGBGGCTGT 10
- (2) INFORMATION FOR SEQ ID NO:1996:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1996:
CGBGGCTGTC BCTCGCTGG GCCC 24
- (2) INFORMATION FOR SEQ ID NO:1997:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1997:
GBGGCTGTCTB CCTCGCTGGG CCC 23
- (2) INFORMATION FOR SEQ ID NO:1998:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1998:
BGGCTGTCTCB CTCGCTGGGC CC 22
- (2) INFORMATION FOR SEQ ID NO:1999:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1999:
GGCTGTCTBCC TCGCTGGGCC C 21
- (2) INFORMATION FOR SEQ ID NO:2000:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2000:
GCTGTCTCBCT CGCTGGGCC 20

- (2) INFORMATION FOR SEQ ID NO:2001:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2001:
CTGTCBCCTC GCTGGGCC 19
- (2) INFORMATION FOR SEQ ID NO:2002:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2002:
TGTCBCCTCG CTGGGCC 18
- (2) INFORMATION FOR SEQ ID NO:2003:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2003:
GTCBCCTCGC TGGGCC 17
- (2) INFORMATION FOR SEQ ID NO:2004:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2004:
TCBCCTCGCT GGGCC 16
- (2) INFORMATION FOR SEQ ID NO:2005:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2005:
CBCCTCGCTG GGCC 15
- (2) INFORMATION FOR SEQ ID NO:2006:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2006:
BCCTCGCTGG GCC 14
- (2) INFORMATION FOR SEQ ID NO:2007:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2007:
CCTCGCTGGG CCC 13
- (2) INFORMATION FOR SEQ ID NO:2008:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2008:
CTCGCTGGGC CC 12
- (2) INFORMATION FOR SEQ ID NO:2009:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2009:
TCGCTGGGCC C

11

(2) INFORMATION FOR SEQ ID NO:2010:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2010:
CGCTGGGCC

10

(2) INFORMATION FOR SEQ ID NO:2011:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2011:
GCGCGGCCGT CBTGGCGGCG TCGGGCCGG C

31

(2) INFORMATION FOR SEQ ID NO:2012:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2012:
GCGCGGCCGT CBTGGCGGCG TCGGGCCGG

30

(2) INFORMATION FOR SEQ ID NO:2013:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2013:
GCGCGGCCGT CBTGGCGGCG TCGGGCCGG

29

(2) INFORMATION FOR SEQ ID NO:2014:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2014:
GCGCGGCCGT CBTGGCGGCG TCGGGCCG

28

(2) INFORMATION FOR SEQ ID NO:2015:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2015:
GCGCGGCCGT CBTGGCGGCG TCGGGCC

27

(2) INFORMATION FOR SEQ ID NO:2016:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2016:
GCGCGGCCGT CBTGGCGGCG TCGGGC

26

(2) INFORMATION FOR SEQ ID NO:2017:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2017:
GCGCGGCCGT CBTGGCGGCG TCGGG 25
- (2) INFORMATION FOR SEQ ID NO:2018:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2018:
GCGCGGCCGT CBTGGCGGCG TCGG 24
- (2) INFORMATION FOR SEQ ID NO:2019:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2019:
GCGCGGCCGT CBTGGCGGCG TCG 23
- (2) INFORMATION FOR SEQ ID NO:2020:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2020:
GCGCGGCCGT CBTGGCGGCG TC 22
- (2) INFORMATION FOR SEQ ID NO:2021:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2021:
GCGCGGCCGT CBTGGCGGCG T 21
- (2) INFORMATION FOR SEQ ID NO:2022:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2022:
GCGCGGCCGT CBTGGCGGCG 20
- (2) INFORMATION FOR SEQ ID NO:2023:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2023:
GCGCGGCCGT CBTGGCGGCG 19
- (2) INFORMATION FOR SEQ ID NO:2024:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2024:
GCGCGGCCGT CBTGGCGGCG 18
- (2) INFORMATION FOR SEQ ID NO:2025:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2025:

GCGCGGCCGT CBTGGCG

17

(2) INFORMATION FOR SEQ ID NO:2026:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2026:

GCGCGGCCGT CBTGGC

16

(2) INFORMATION FOR SEQ ID NO:2027:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2027:

GCGCGGCCGT CBTGG

15

(2) INFORMATION FOR SEQ ID NO:2028:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2028:

GCGCGGCCGT CBTG

14

(2) INFORMATION FOR SEQ ID NO:2029:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2029:

GCGCGGCCGT CBT

13

(2) INFORMATION FOR SEQ ID NO:2030:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2030:

GCGCGGCCGT CB

12

(2) INFORMATION FOR SEQ ID NO:2031:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2031:

GCGCGGCCGT C

11

(2) INFORMATION FOR SEQ ID NO:2032:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2032:

GCGCGGCCGT

10

(2) INFORMATION FOR SEQ ID NO:2033:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2033:

GCGGCCGTC BTGGCGCGT CCGGCCGGG

30

(2) INFORMATION FOR SEQ ID NO:2034:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2034:
GCGGCCGTCB TGGCGGCGTC GGGCCGGGC 29
- (2) INFORMATION FOR SEQ ID NO:2035:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2035:
CGGCCGTCBT GCGGCCGTCG GGGCCGGC 28
- (2) INFORMATION FOR SEQ ID NO:2036:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2036:
GGCCGTCBTG GCGGCGTCGG GCCGGGC 27
- (2) INFORMATION FOR SEQ ID NO:2037:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2037:
CCCGTCBTGG CCGCGTCGGG CCGGGC 26
- (2) INFORMATION FOR SEQ ID NO:2038:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2038:
CCGTCBTGGC GCGTCGGGC CGGGC 25
- (2) INFORMATION FOR SEQ ID NO:2039:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2039:
CGTCBTGGCG GCGTCGGGCC GGGC 24
- (2) INFORMATION FOR SEQ ID NO:2040:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2040:
GTCBTGGCGG CGTCGGGCCG GGC 23
- (2) INFORMATION FOR SEQ ID NO:2041:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2041:
TCBTGGCGGC GTCGGGCCG GC 22
- (2) INFORMATION FOR SEQ ID NO:2042:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2042:
CBTGGCGGCG TCGGGCCGGG C 21
- (2) INFORMATION FOR SEQ ID NO:2043:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2043:
BTGGCGGCGT CGGGCCGGGC 20
- (2) INFORMATION FOR SEQ ID NO:2044:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2044:
TGGCGGCGTC GGGCCGGGC 19
- (2) INFORMATION FOR SEQ ID NO:2045:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2045:
GGCGGCGTCG GCGCGGGC 18
- (2) INFORMATION FOR SEQ ID NO:2046:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2046:
GCGGCGTCGG GCCGGGC 17
- (2) INFORMATION FOR SEQ ID NO:2047:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2047:
CGGCGTCGGG CCGGGC 16
- (2) INFORMATION FOR SEQ ID NO:2048:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2048:
GGCGTCGGGC CGGGC 15
- (2) INFORMATION FOR SEQ ID NO:2049:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2049:
GCGTCGGGCC GGGC 14
- (2) INFORMATION FOR SEQ ID NO:2050:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2050:

CGTCGGGCCG GGC

13

(2) INFORMATION FOR SEQ ID NO:2051:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2051:

GTCGGGCCG GC

12

(2) INFORMATION FOR SEQ ID NO:2052:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2052:

TCGGGCCGG C

11

(2) INFORMATION FOR SEQ ID NO:2053:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2053:

CGGGCCGGGC

10

(2) INFORMATION FOR SEQ ID NO:2054:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2054:

CCGCBGGCCB GGGCGGCCG CCGGCCGGC CG

32

(2) INFORMATION FOR SEQ ID NO:2055:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2055:

CCGCBGGCCB GGGCGGCCG CCGGCCGGC C

31

(2) INFORMATION FOR SEQ ID NO:2056:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2056:

CCGCBGGCCB GGGCGGCCG CCGGCCGGC

30

(2) INFORMATION FOR SEQ ID NO:2057:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2057:

CCGCBGGCCB GGGCGGCCG CCGGCCGG

29

(2) INFORMATION FOR SEQ ID NO:2058:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2058:

CCGCBGGCCB GGGCGGCCG CCGGCCG

28

(2) INFORMATION FOR SEQ ID NO:2059:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2059:
CCGCBGGCCB GGGCGGCCG CCGGCCG 27
- (2) INFORMATION FOR SEQ ID NO:2060:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2060:
CCGCBGGCCB GGGCGGCCG CCGGCC 26
- (2) INFORMATION FOR SEQ ID NO:2061:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2061:
CCGCBGGCCB GGGCGGCCG CCGGC 25
- (2) INFORMATION FOR SEQ ID NO:2062:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2062:
CCGCBGGCCB GGGCGGCCG CCGG 24
- (2) INFORMATION FOR SEQ ID NO:2063:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2063:
CCGCBGGCCB GGGCGGCCG CCG 23
- (2) INFORMATION FOR SEQ ID NO:2064:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2064:
CCGCBGGCCB GGGCGGCCG CC 22
- (2) INFORMATION FOR SEQ ID NO:2065:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2065:
CCGCBGGCCB GGGCGGCCG C 21
- (2) INFORMATION FOR SEQ ID NO:2066:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2066:
CCGCBGGCCB GGGCGGCCG 20
- (2) INFORMATION FOR SEQ ID NO:2067:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2067:
CCGCBGGCCB GGGCGCGCC 19
- (2) INFORMATION FOR SEQ ID NO:2068:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2068:
CCGCBGGCCB GGGCGCGC 18
- (2) INFORMATION FOR SEQ ID NO:2069:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2069:
CCGCBGGCCB GGGCGCG 17
- (2) INFORMATION FOR SEQ ID NO:2070:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2070:
CCGCBGGCCB GGGCGC 16
- (2) INFORMATION FOR SEQ ID NO:2071:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2071:
CCGCBGGCCB GGGCG 15
- (2) INFORMATION FOR SEQ ID NO:2072:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2072:
CCGCBGGCCB GGGC 14
- (2) INFORMATION FOR SEQ ID NO:2073:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2073:
CCGCBGGCCB GGG 13
- (2) INFORMATION FOR SEQ ID NO:2074:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2074:
CCGCBGGCCB GG 12
- (2) INFORMATION FOR SEQ ID NO:2075:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2075:

CCGCBGGCCB G

11

- (2) INFORMATION FOR SEQ ID NO:2076:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2076:
CCGCBGGCCB

10

- (2) INFORMATION FOR SEQ ID NO:2077:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 9 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2077:
CCGCBGGCC

9

- (2) INFORMATION FOR SEQ ID NO:2078:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2078:
CCGCBGGCCBG GCGCGCCCGC CGGCCGGGCC G

31

- (2) INFORMATION FOR SEQ ID NO:2079:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2079:
GCBGGCCBGG GCGCGCCCGC GGCCGGGCCG

30

- (2) INFORMATION FOR SEQ ID NO:2080:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2080:
CBGGCCBGGG CGCGCCCGCG GCCGGGCCG

29

- (2) INFORMATION FOR SEQ ID NO:2081:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2081:
BGGCCBGGGC GCGCCCGCGG CCGGGCCG

28

- (2) INFORMATION FOR SEQ ID NO:2082:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2082:
GGCCBGGGCG CGCCCGCGGC CGGGCCG

27

- (2) INFORMATION FOR SEQ ID NO:2083:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2083:
GCCBGGGCGC GCCCGCGGCC GGGCCG

26

- (2) INFORMATION FOR SEQ ID NO:2084:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2084:
CCBGGGCGCG CCGCCGGCCG GGCCG 25
- (2) INFORMATION FOR SEQ ID NO:2085:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2085:
CBGGGCGCGC CCGCCGGCCG GCCG 24
- (2) INFORMATION FOR SEQ ID NO:2086:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2086:
BGGGCGCGCC GCCGGCCGG CCG 23
- (2) INFORMATION FOR SEQ ID NO:2087:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2087:
GGGCGCGCCG CCGCCGGGC CG 22
- (2) INFORMATION FOR SEQ ID NO:2088:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2088:
GGCGCGCCGC CGCCGGGCC G 21
- (2) INFORMATION FOR SEQ ID NO:2089:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2089:
GCGCGCCGC GCCGGGCCG 20
- (2) INFORMATION FOR SEQ ID NO:2090:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2090:
CGCGCCGC GCCGGGCCG 19
- (2) INFORMATION FOR SEQ ID NO:2091:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2091:
GCGCCGC GCCGGGCCG 18
- (2) INFORMATION FOR SEQ ID NO:2092:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2092:
CGCCGCCGGC CGGGCCG 17
- (2) INFORMATION FOR SEQ ID NO:2093:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2093:
GCCGCCGGCC GGGCCG 16
- (2) INFORMATION FOR SEQ ID NO:2094:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2094:
CCGCCGGCCG GGCCG 15
- (2) INFORMATION FOR SEQ ID NO:2095:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2095:
CGCCGGCCGG GCCG 14
- (2) INFORMATION FOR SEQ ID NO:2096:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2096:
GCCGGCCGGG CCG 13
- (2) INFORMATION FOR SEQ ID NO:2097:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2097:
CCGGCCGGGC CG 12
- (2) INFORMATION FOR SEQ ID NO:2098:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2098:
CGGCCGGGCC G 11
- (2) INFORMATION FOR SEQ ID NO:2099:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2099:
GGCCGGGCCG 10
- (2) INFORMATION FOR SEQ ID NO:2100:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2100:

GGGCGCBGGC TCCGCB

16

(2) INFORMATION FOR SEQ ID NO:2101:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 46 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2101:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG GCCCGG

46

(2) INFORMATION FOR SEQ ID NO:2102:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 45 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2102:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG GCCCG

45

(2) INFORMATION FOR SEQ ID NO:2103:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 44 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2103:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG GCCC

44

(2) INFORMATION FOR SEQ ID NO:2104:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 43 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2104:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG GCC

43

(2) INFORMATION FOR SEQ ID NO:2105:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 42 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2105:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG GC

42

(2) INFORMATION FOR SEQ ID NO:2106:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 41 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2106:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG G

41

(2) INFORMATION FOR SEQ ID NO:2107:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 40 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2107:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG

40

(2) INFORMATION FOR SEQ ID NO:2108:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 39 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2108:

GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCCGCG

39

(2) INFORMATION FOR SEQ ID NO:2109:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2109:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 38
- (2) INFORMATION FOR SEQ ID NO:2110:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2110:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 37
- (2) INFORMATION FOR SEQ ID NO:2111:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2111:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 36
- (2) INFORMATION FOR SEQ ID NO:2112:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2112:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 35
- (2) INFORMATION FOR SEQ ID NO:2113:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2113:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 34
- (2) INFORMATION FOR SEQ ID NO:2114:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2114:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 33
- (2) INFORMATION FOR SEQ ID NO:2115:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2115:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 32
- (2) INFORMATION FOR SEQ ID NO:2116:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2116:
GGGCCCCCTGG CTCGGCCCCG CGGCCCGGCT TGCCCCGC 31
- (2) INFORMATION FOR SEQ ID NO:2117:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2117:
GGGCCCCCTGG CTCGGCCCCG CGGCCCCGGCT 30

(2) INFORMATION FOR SEQ ID NO:2118:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2118:
GGGCCCCCTGG CTCGGCCCCG CGGCCCCGGC 29

(2) INFORMATION FOR SEQ ID NO:2119:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2119:
GGGCCCCCTGG CTCGGCCCCG CGGCCCCG 28

(2) INFORMATION FOR SEQ ID NO:2120:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2120:
GGGCCCCCTGG CTCGGCCCCG CGGCCCC 27

(2) INFORMATION FOR SEQ ID NO:2121:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2121:
GGGCCCCCTGG CTCGGCCCCG CGGCCC 26

(2) INFORMATION FOR SEQ ID NO:2122:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2122:
GGGCCCCCTGG CTCGGCCCCG CGGCC 25

(2) INFORMATION FOR SEQ ID NO:2123:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2123:
GGGCCCCCTGG CTCGGCCCCG CGGC 24

(2) INFORMATION FOR SEQ ID NO:2124:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2124:
GGGCCCCCTGG CTCGGCCCCG CGG 23

(2) INFORMATION FOR SEQ ID NO:2125:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2125:

GGGCCCCTGG CTCGGCCCCG CG

22

(2) INFORMATION FOR SEQ ID NO:2126:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2126:

GGGCCCCTGG CTCGGCCCCG C

21

(2) INFORMATION FOR SEQ ID NO:2127:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2127:

GGGCCCCTGG CTCGGCCCCG

20

(2) INFORMATION FOR SEQ ID NO:2128:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2128:

GGGCCCCTGG CTCGGCCCC

19

(2) INFORMATION FOR SEQ ID NO:2129:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2129:

GGGCCCCTGG CTCGGCCC

18

(2) INFORMATION FOR SEQ ID NO:2130:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2130:

GGGCCCCTGG CTCGGCC

17

(2) INFORMATION FOR SEQ ID NO:2131:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2131:

GGGCCCCTGG CTCGGC

16

(2) INFORMATION FOR SEQ ID NO:2132:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2132:

GGGCCCCTGG CTCGG

15

(2) INFORMATION FOR SEQ ID NO:2133:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2133:

GGGCCCCTGG CTCG

14

(2) INFORMATION FOR SEQ ID NO:2134:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2134:
GGGCCCCTGG CTC 13
- (2) INFORMATION FOR SEQ ID NO:2135:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2135:
GGGCCCCTGG CT 12
- (2) INFORMATION FOR SEQ ID NO:2136:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 45 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2136:
GGCCCCTGGC TCGGCCCCGC GGCCGGCTT GCCGCCCGG CCCGG 45
- (2) INFORMATION FOR SEQ ID NO:2137:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 44 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2137:
GCCCCTGGCT CGGCCCCGC GCCGGCTTG CCCGCCCGC CCGG 44
- (2) INFORMATION FOR SEQ ID NO:2138:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 43 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2138:
CCCCTGGCTC GGCCCCGCGG CCGGCTTGC CCGCCCGGCC CGG 43
- (2) INFORMATION FOR SEQ ID NO:2139:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 42 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2139:
CCCTGGCTCG GCCCCGCGGC CCGGCTTGCC CGCCCGGCC GG 42
- (2) INFORMATION FOR SEQ ID NO:2140:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 41 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2140:
CCTGGCTCGG CCCC GCGGCC CGGCTTGCC GCCCGGCCG G 41
- (2) INFORMATION FOR SEQ ID NO:2141:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 40 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2141:
CTGGCTCGGC CCCGCGGCC GGCTTGCCC CCCGGCCCCG 40
- (2) INFORMATION FOR SEQ ID NO:2142:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 39 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2142:
TGGCTCGGCC CCGCGGCCCG GCTTGCCCCG CCGGCCCGG 39
- (2) INFORMATION FOR SEQ ID NO:2143:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2143:
GGCTCGGCCC CGCGGCCCGG CTTGCCCCG CCGGCCCGG 38
- (2) INFORMATION FOR SEQ ID NO:2144:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 37 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2144:
GCTCGGCCCC GCGGCCCGG TTGCCCCG GCGGCCG 37
- (2) INFORMATION FOR SEQ ID NO:2145:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2145:
CTCGGCCCG CCGCCCGGCT TGCCCCCG GCGGCCG 36
- (2) INFORMATION FOR SEQ ID NO:2146:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2146:
TCGGCCCCG GCGCCGGCTT GCCGCCCG CCCGG 35
- (2) INFORMATION FOR SEQ ID NO:2147:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2147:
CGGCCCGCG GCCCGGCTTG CCCGCCCG CCGG 34
- (2) INFORMATION FOR SEQ ID NO:2148:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2148:
GGCCCCGCG CCCGGCTTG CCGCCCGG CCG 33
- (2) INFORMATION FOR SEQ ID NO:2149:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2149:
GCCCCGCGG CCGGCTTGCC CGCCCGGCC GG 32
- (2) INFORMATION FOR SEQ ID NO:2150:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2150:

CCCCGCGGCC CGGCTTGCCC GCCCGGCCCG G

31

(2) INFORMATION FOR SEQ ID NO:2151:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 30 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2151:

CCCCGCGGCC GGCTTGCCC GCCCGGCCCG

30

(2) INFORMATION FOR SEQ ID NO:2152:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 29 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2152:

CCGCGGCCCG GCTTGCCCG CCGGCCCG

29

(2) INFORMATION FOR SEQ ID NO:2153:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 28 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2153:

CGCGGCCCG CTTGCCCG CCGGCCCG

28

(2) INFORMATION FOR SEQ ID NO:2154:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 27 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2154:

GCGGCCCGG TGTCCCGG GCGCCG

27

(2) INFORMATION FOR SEQ ID NO:2155:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 26 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2155:

CGGCCCGGCT TGCCCGCCG GCCCG

26

(2) INFORMATION FOR SEQ ID NO:2156:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 25 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2156:

GGCCCGGCTT GCCCGCCCG CCCG

25

(2) INFORMATION FOR SEQ ID NO:2157:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 24 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2157:

GCCCGGCTTG CCCGCCCG CCG

24

(2) INFORMATION FOR SEQ ID NO:2158:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2158:

CCCGGCTTG CCGCCCGG CCG

23

(2) INFORMATION FOR SEQ ID NO:2159:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2159:
CCGGCTTGCC CGCCCGCCCC GG 22
- (2) INFORMATION FOR SEQ ID NO:2160:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2160:
CGGCTTGCCC GCCCGCCCCG G 21
- (2) INFORMATION FOR SEQ ID NO:2161:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2161:
GGCTTGCCCC CCCGGCCCCG 20
- (2) INFORMATION FOR SEQ ID NO:2162:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2162:
GCTTGCCCCG CCCGGCCCCG 19
- (2) INFORMATION FOR SEQ ID NO:2163:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2163:
CTTGCCCCGCG CGGCCCGG 18
- (2) INFORMATION FOR SEQ ID NO:2164:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2164:
TTGCCCGCCCC GGCCCCG 17
- (2) INFORMATION FOR SEQ ID NO:2165:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2165:
TGCCCGCCCCG GCCCCG 16
- (2) INFORMATION FOR SEQ ID NO:2166:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2166:
GCCCCGCCCG CCCGG 15
- (2) INFORMATION FOR SEQ ID NO:2167:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2167:
CCGCCCCGGC CCGG 14
- (2) INFORMATION FOR SEQ ID NO:2168:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2168:
CCGCCCCGGC CGG 13
- (2) INFORMATION FOR SEQ ID NO:2169:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2169:
CGCCCCGGCC GG 12
- (2) INFORMATION FOR SEQ ID NO:2170:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2170:
GCCCCGGCCG G 11
- (2) INFORMATION FOR SEQ ID NO:2171:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 36 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2171:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GGCCCC 36
- (2) INFORMATION FOR SEQ ID NO:2172:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2172:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GGCCC 35
- (2) INFORMATION FOR SEQ ID NO:2173:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2173:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GGCC 34
- (2) INFORMATION FOR SEQ ID NO:2174:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2174:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GGC 33
- (2) INFORMATION FOR SEQ ID NO:2175:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2175:

GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG GG 32

(2) INFORMATION FOR SEQ ID NO:2176:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2176:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG G 31

(2) INFORMATION FOR SEQ ID NO:2177:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 30 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2177:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTBG 30

(2) INFORMATION FOR SEQ ID NO:2178:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 29 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2178:
GGCGGGGGCG GCGGCGCCTG GCTCGCCTB 29

(2) INFORMATION FOR SEQ ID NO:2179:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2179:
GGCGGGGGCG GCGGCGCCTG GCTCGCCT 28

(2) INFORMATION FOR SEQ ID NO:2180:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2180:
GGCGGGGGCG GCGGCGCCTG GCTCGCC 27

(2) INFORMATION FOR SEQ ID NO:2181:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2181:
GGCGGGGGCG GCGGCGCCTG GCTCGC 26

(2) INFORMATION FOR SEQ ID NO:2182:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 25 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2182:
GGCGGGGGCG GCGGCGCCTG GCTCG 25

(2) INFORMATION FOR SEQ ID NO:2183:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2183:
GGCGGGGGCG GCGGCGCCTG GCTC 24

(2) INFORMATION FOR SEQ ID NO:2184:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2184:
GGCGGGGGCG GCGGCGCCTG GCT 23
- (2) INFORMATION FOR SEQ ID NO:2185:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2185:
GGCGGGGGCG GCGGCGCCTG GC 22
- (2) INFORMATION FOR SEQ ID NO:2186:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2186:
GGCGGGGGCG GCGGCGCCTG G 21
- (2) INFORMATION FOR SEQ ID NO:2187:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2187:
GGCGGGGGCG GCGGCGCCTG 20
- (2) INFORMATION FOR SEQ ID NO:2188:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2188:
GGCGGGGGCG GCGGCGCCT 19
- (2) INFORMATION FOR SEQ ID NO:2189:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2189:
GGCGGGGGCG GCGGCGCC 18
- (2) INFORMATION FOR SEQ ID NO:2190:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2190:
GGCGGGGGCG GCGGCGC 17
- (2) INFORMATION FOR SEQ ID NO:2191:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2191:
GGCGGGGGCG GCGGCG 16
- (2) INFORMATION FOR SEQ ID NO:2192:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2192:
GGCGGGGGCG GCGGC 15
- (2) INFORMATION FOR SEQ ID NO:2193:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2193:
GGCGGGGGCG GCGG 14
- (2) INFORMATION FOR SEQ ID NO:2194:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2194:
GGCGGGGGCG GCG 13
- (2) INFORMATION FOR SEQ ID NO:2195:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2195:
GGCGGGGGCG GC 12
- (2) INFORMATION FOR SEQ ID NO:2196:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2196:
GGCGGGGGCG G 11
- (2) INFORMATION FOR SEQ ID NO:2197:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 35 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2197:
GCGGGGGCGG CGGCGCTGG CTCGCTBGG GCCC 35
- (2) INFORMATION FOR SEQ ID NO:2198:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 34 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2198:
CGGGGGCGG GCGCCTGGC TCGCTBGGG CCCC 34
- (2) INFORMATION FOR SEQ ID NO:2199:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2199:
GGGGGGCGG GCGCCTGGCT CGCCTBGGG CCC 33
- (2) INFORMATION FOR SEQ ID NO:2200:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2200:

GGGGCGGCGG CGCCTGGCTC GCCTBGGGCC CC

32

(2) INFORMATION FOR SEQ ID NO:2201:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 31 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2201:

GGGCGGCGGC GCCTGGCTCG CCTBGGGCC C

31

(2) INFORMATION FOR SEQ ID NO:2202:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 30 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2202:

GGGCGGCGGC CCTGGCTCGC CTBGGGCC

30

(2) INFORMATION FOR SEQ ID NO:2203:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 29 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2203:

GGGCGGCGGC CTGGCTCGCC TBGGGCC

29

(2) INFORMATION FOR SEQ ID NO:2204:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2204:

CGGCGGCGCC TGGCTCGCCT BGGGCC

28

(2) INFORMATION FOR SEQ ID NO:2205:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2205:

GGGCGGCCT GGCTCGCCTB GGGCCC

27

(2) INFORMATION FOR SEQ ID NO:2206:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2206:

GGGCGCCTG GCTCGCCTBG GGCCCC

26

(2) INFORMATION FOR SEQ ID NO:2207:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2207:

CGGCGCCTGG CTCGCTBGG GCCCC

25

(2) INFORMATION FOR SEQ ID NO:2208:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2208:

GGCGCCTGGC TCGCTBGG CCCC

24

(2) INFORMATION FOR SEQ ID NO:2209:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2209:
GCGCCTGGCT CGCCTBGGGC CCC 23
- (2) INFORMATION FOR SEQ ID NO:2210:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2210:
CGCCTGGCTC GCCTBGGGCC CC 22
- (2) INFORMATION FOR SEQ ID NO:2211:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2211:
GCCTGGCTCG CCTBGGGCC C 21
- (2) INFORMATION FOR SEQ ID NO:2212:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2212:
CCTGGCTCGC CTBGGGCCCC 20
- (2) INFORMATION FOR SEQ ID NO:2213:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2213:
CTGGCTCGCC TBGGGCCCC 19
- (2) INFORMATION FOR SEQ ID NO:2214:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2214:
TGGCTCGCCT BGGGCCCC 18
- (2) INFORMATION FOR SEQ ID NO:2215:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2215:
GGCTCGCCTB GGGCCCC 17
- (2) INFORMATION FOR SEQ ID NO:2216:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2216:
GCTCGCCTBG GGCCCC 16
- (2) INFORMATION FOR SEQ ID NO:2217:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2217:
CTCGCCTBGG GCCCC 15
- (2) INFORMATION FOR SEQ ID NO:2218:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2218:
TCGCCTBGGG CCCC 14
- (2) INFORMATION FOR SEQ ID NO:2219:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2219:
CGCCTBGGGC CCC 13
- (2) INFORMATION FOR SEQ ID NO:2220:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2220:
GCCTBGGGCC CC 12
- (2) INFORMATION FOR SEQ ID NO:2221:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2221:
CCTBGGGCC C 11
- (2) INFORMATION FOR SEQ ID NO:2222:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2222:
CTBGGGCCCC 10
- (2) INFORMATION FOR SEQ ID NO:2223:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2223:
GGGTGGGCBC GCGGCC 17
- (2) INFORMATION FOR SEQ ID NO:2224:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2224:
GGTCGGCGBB GBGCTCGTCG TGGC 24
- (2) INFORMATION FOR SEQ ID NO:2225:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2225:

EPI-109

544

GGTCGGCGBB GBGCTCGTCG TGG

23

(2) INFORMATION FOR SEQ ID NO:2226:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2226:

GGTCGGCGBB GBGCTCGTCG TG

22

(2) INFORMATION FOR SEQ ID NO:2227:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 21 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2227:

GGTCGGCGBB GBGCTCGTCG T

21

(2) INFORMATION FOR SEQ ID NO:2228:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2228:

GGTCGGCGBB GBGCTCGTCG

20

(2) INFORMATION FOR SEQ ID NO:2229:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2229:

GGTCGGCGBB GBGCTCGTC

19

(2) INFORMATION FOR SEQ ID NO:2230:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2230:

GGTCGGCGBB GBGCTCGT

18

(2) INFORMATION FOR SEQ ID NO:2231:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2231:

GGTCGGCGBB GBGCTCG

17

(2) INFORMATION FOR SEQ ID NO:2232:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2232:

GGTCGGCGBB GBGCTC

16

(2) INFORMATION FOR SEQ ID NO:2233:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2233:

GGTCGGCGBB GBGCT

15

(2) INFORMATION FOR SEQ ID NO:2234:

EPI-109

545

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2234:
GGTCGGCGBB GBGC 14

(2) INFORMATION FOR SEQ ID NO:2235:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2235:
GGTCGGCGBB GBG 13

(2) INFORMATION FOR SEQ ID NO:2236:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2236:
GGTCGGCGBB GB 12

(2) INFORMATION FOR SEQ ID NO:2237:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2237:
GGTCGGCGBB G 11

(2) INFORMATION FOR SEQ ID NO:2238:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2238:
GTCGGCGBBG BGCTCGTCGT GGC 23

(2) INFORMATION FOR SEQ ID NO:2239:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2239:
TCGGCGBBGB GCTCGTCGTG GC 22

(2) INFORMATION FOR SEQ ID NO:2240:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2240:
CGGCGBBGBG CTCGTCGTGG C 21

(2) INFORMATION FOR SEQ ID NO:2241:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2241:
GGCGBBGBGC TCGTCGTGGC 20

(2) INFORMATION FOR SEQ ID NO:2242:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid

EPI-109

546

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2242:
GCGBBGBGCT CGTCGTGGC 19

(2) INFORMATION FOR SEQ ID NO:2243:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2243:
CGBBGBGCTC GTCGTGGC 18

(2) INFORMATION FOR SEQ ID NO:2244:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2244:
GBBGBGCTCG TCGTGGC 17

(2) INFORMATION FOR SEQ ID NO:2245:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2245:
BBGBGCTCGT CGTGGC 16

(2) INFORMATION FOR SEQ ID NO:2246:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2246:
BGBGCTCGTC GTGGC 15

(2) INFORMATION FOR SEQ ID NO:2247:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2247:
GBGCTCGTCG TGGC 14

(2) INFORMATION FOR SEQ ID NO:2248:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2248:
BGCTCGTCGT GGC 13

(2) INFORMATION FOR SEQ ID NO:2249:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2249:
GCTCGTCGTG GC 12

(2) INFORMATION FOR SEQ ID NO:2250:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2250:

EPI-109

547

CTCGTCGTGG C

11

(2) INFORMATION FOR SEQ ID NO:2251:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2251:

TCGTCGTGGC

10

(2) INFORMATION FOR SEQ ID NO:2252:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 20 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2252:

GGGGCCCCGC GCCGCCGCC

20

(2) INFORMATION FOR SEQ ID NO:2253:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2253:

GGGGCCCCGC GCCGCCGCC

19

(2) INFORMATION FOR SEQ ID NO:2254:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2254:

GGGGCCCCGC GCCGCCCG

18

(2) INFORMATION FOR SEQ ID NO:2255:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2255:

GGGGCCCCGC GCCGCC

17

(2) INFORMATION FOR SEQ ID NO:2256:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2256:

GGGGCCCCGC GCCGCC

16

(2) INFORMATION FOR SEQ ID NO:2257:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2257:

GGGGCCCCGC GCCGC

15

(2) INFORMATION FOR SEQ ID NO:2258:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2258:

GGGGCCCCGC GCCG

14

(2) INFORMATION FOR SEQ ID NO:2259:

EPI-109

548

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2259:
GGGGCCCCGC GCC 13

(2) INFORMATION FOR SEQ ID NO:2260:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2260:
GGGGCCCCGC GC 12

(2) INFORMATION FOR SEQ ID NO:2261:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2261:
GGGCCCCGCG CCGCCCCG 19

(2) INFORMATION FOR SEQ ID NO:2262:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 18 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2262:
GGCCCCGCGC CGCCCCG 18

(2) INFORMATION FOR SEQ ID NO:2263:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2263:
GCCCCGCGCC GCCCGCC 17

(2) INFORMATION FOR SEQ ID NO:2264:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 16 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2264:
CCCCGCGCCG CCCGCC 16

(2) INFORMATION FOR SEQ ID NO:2265:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 15 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2265:
CCCCGCGCCG CCGCC 15

(2) INFORMATION FOR SEQ ID NO:2266:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 14 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2266:
CCGCGCCGCC CGCC 14

(2) INFORMATION FOR SEQ ID NO:2267:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 13 base pairs
 (B) TYPE: nucleic acid

(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2267:
CGCGCCGCC GCC 13

(2) INFORMATION FOR SEQ ID NO:2268:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2268:
GCGCCGCCCG CC 12

(2) INFORMATION FOR SEQ ID NO:2269:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 11 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2269:
CGCCGCCCGC C 11

(2) INFORMATION FOR SEQ ID NO:2270:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 10 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2270:
GCCGCCCGCC 10

(2) INFORMATION FOR SEQ ID NO:2271:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2271:
GGGGCGCGCG GGGCCGCCG G 21

(2) INFORMATION FOR SEQ ID NO:2272:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2272:
GGCGGGGBGC GGCBBGGGCC GGGCCC 26

(2) INFORMATION FOR SEQ ID NO:2273:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 33 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2273:
GGCGCGTCGC CGTCGCCCCB GTCGGGCTCG CGC 33

(2) INFORMATION FOR SEQ ID NO:2274:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2274:
GCGCGGCB CBGCBGCGCG GCGCG 26

(2) INFORMATION FOR SEQ ID NO:2275:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2275:

EPI-109

550

GCGCBCGGGC CCBCTGCGC GGGC

24

(2) INFORMATION FOR SEQ ID NO:2276:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 28 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2276:

GGGCGGGGTG GGCTGCCCTG CGGCCGC

28

(2) INFORMATION FOR SEQ ID NO:2277:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2277:

GGGCTGCTGC GCGGCGGCTC CGGCGA

26

(2) INFORMATION FOR SEQ ID NO:2278:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 25 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2278:

CTCCCGGGCG GGGCCGGGCG CGGGG

25

(2) INFORMATION FOR SEQ ID NO:2279:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 33 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2279:

GGGCTGCCGC GGTCCGGGCC CCTCTGCCG GCG

33

(2) INFORMATION FOR SEQ ID NO:2280:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2280:

GCGCTCGCGC CGCTGCCG

19

(2) INFORMATION FOR SEQ ID NO:2281:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 23 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2281:

GCGCCGCTTG GCCTTGTCG GGC

23

(2) INFORMATION FOR SEQ ID NO:2282:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2282:

GCTGCTCCBC GCGCTGG

17

(2) INFORMATION FOR SEQ ID NO:2283:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2283:

GCCGGBGGCC GGCCBGGTCC CGCG

24

(2) INFORMATION FOR SEQ ID NO:2284:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 31 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2284:
CCCGGCGGCC GGCBBGGBGG GCGGGCTGGG C 31
- (2) INFORMATION FOR SEQ ID NO:2285:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2285:
CTCTCTCCCG CCGGCGCCG GCG 23
- (2) INFORMATION FOR SEQ ID NO:2286:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2286:
GGGCGTCCGC TCCGGCCCGT CGGG 24
- (2) INFORMATION FOR SEQ ID NO:2287:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2287:
GCGGGCACGC GCGGCTCTG GCGTCGGC 28
- (2) INFORMATION FOR SEQ ID NO:2288:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 681 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2288:
GGTGBCBTG BGCBTGTGCG CGCGGTCCCG TTBBGBGTGG GCCCGCCAGC CCAGCCACTC 60
CACTTGGGGG CGGGTGGCCA GCACGAACAG CACCCAGAGG AAGGGGGGCG GCCCAGAAGG 120
GCAGCCCGCA GGCCAGGATC AGGTCTGCTG CGGCCGAGA TAATGGCATT CACCACGCGG 180
CGGCCAGCG CAGCCCGCGC ATCCGGCCCG GGTTCGTACC TGCAGCCCCC GTCTCCTTGG 240
CATTCTGGG CCCAGTCAC TCCTCTCCCT GCGCCCTTG CTGGGGCAGG GACGGGGTGB 300
CBTTGBGCBT GTCGGCGCGG TCCCGTTBBG BGTGGGCCCC CCAGCCCAGC CACTCCACTT 360
GGGGGCGGGT GGCCAGCACG AACAGCACCC AGAGGAAGGG GGGCGGCCCA GAAGGGCAGC 420
CCGAGGCCA GGATCAGGTC TGCTGCGGCC GGAGATAATG GCATTACCA CGCGGCGGCC 480
CAGCGCACGC CGGCATCCG GCGCGGGTTC TGACCTGCAG CCCCCGTCT CTTGGCATTG 540
CTGGGCCCCA GTCACCTCTC TCCCTGCCCC CCTTGCTGGG GCAGGGACGG CCGTGTGTGC 600
BGTGGTGTG CCGGTTTGBG GTBTGGCGCT CCBCCBBTTC CCTTTTCTCC TTGTTTTCCG 660
TTTCTCTGCG CGTCTGTGGT T 681
- (2) INFORMATION FOR SEQ ID NO:2289:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2289:
GGTGBCBTG BGCBTGTGCG CGC 23
- (2) INFORMATION FOR SEQ ID NO:2290:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2290:
GGTCCCGTTB BGBGTGGGCC C 21
- (2) INFORMATION FOR SEQ ID NO:2291:
(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2291:
GCCAGCCCAG CCACTCCACT TGGGGGC 27
- (2) INFORMATION FOR SEQ ID NO:2292:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2292:
GGGTGCCCAG CACGAACAGC ACCCAGAGGA AGGGGGGC 38
- (2) INFORMATION FOR SEQ ID NO:2293:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 46 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2293:
GGCCCAGAAG GGCAGCCCGC AGGCCAGGAT CAGGTCTGCT GCGGCC 46
- (2) INFORMATION FOR SEQ ID NO:2294:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2294:
GGAGATAATG GCATTCACCA CGCGGC 26
- (2) INFORMATION FOR SEQ ID NO:2295:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2295:
GGCCCAGCGC ACGCCGCGCA TCCGGCCC 28
- (2) INFORMATION FOR SEQ ID NO:2296:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2296:
GGGTTCTGAC CTGCAGCCCC C 21
- (2) INFORMATION FOR SEQ ID NO:2297:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2297:
GTCTCCTTGG CATTCTGGG CCC 23
- (2) INFORMATION FOR SEQ ID NO:2298:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2298:
CAGTCACTCC TCTCCCTGCC CCC 23
- (2) INFORMATION FOR SEQ ID NO:2299:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2299:
CTTGCTGGGG CAGGGACGG 19

(2) INFORMATION FOR SEQ ID NO:2300:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2300:
GGTGBCBTG BGCBTGTCGG CGC 23

(2) INFORMATION FOR SEQ ID NO:2301:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2301:
GGTCCCGTTB BGBTGCGGCC C 21

(2) INFORMATION FOR SEQ ID NO:2302:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2302:
GCCAGCCAG CCACTCCACT TGGGGGC 27

(2) INFORMATION FOR SEQ ID NO:2303:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 38 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2303:
GGGTGCCAG CACGAACAGC ACCCAGAGGA AGGGGGC 38

(2) INFORMATION FOR SEQ ID NO:2304:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 46 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2304:
GGCCAGAAG GGCAGCCGC AGGCCAGGAT CAGGTCTGCT GCGGCC 46

(2) INFORMATION FOR SEQ ID NO:2305:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2305:
GGAGATAATG GCATTCACCA CGCGC 26

(2) INFORMATION FOR SEQ ID NO:2306:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2306:
GGCCAGCGC ACGCCGCGCA TCCGGCC 28

(2) INFORMATION FOR SEQ ID NO:2307:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2307:
GGGTTCTGAC CTGCAGCCCC C 21

- (2) INFORMATION FOR SEQ ID NO:2308:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2308:
GTCTCCTTGG CATTCTGGG CCC 23
- (2) INFORMATION FOR SEQ ID NO:2309:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2309:
CAGTCACTCC TCTCCCTGCC CCC 23
- (2) INFORMATION FOR SEQ ID NO:2310:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2310:
CTTGCTGGGG CAGGGACGG 19
- (2) INFORMATION FOR SEQ ID NO:2311:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 20 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2311:
CCGTGTTGTC BGTGGTGCTG 20
- (2) INFORMATION FOR SEQ ID NO:2312:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 17 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2312:
CCCGTTTGBG GTBTGGC 17
- (2) INFORMATION FOR SEQ ID NO:2313:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 23 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2313:
GCTCCBCCBB TTCCCTTTTC TCC 23
- (2) INFORMATION FOR SEQ ID NO:2314:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 19 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2314:
TTGTTTTCCG TTTCTCTG 19
- (2) INFORMATION FOR SEQ ID NO:2315:
(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 12 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2315:
CCGTCTGTGG TT 12
- (2) INFORMATION FOR SEQ ID NO:2316:
(i) SEQUENCE CHARACTERISTICS:

EPI-109

555

(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2316:
CCCCGCCCCG CCTCGTGCC 19

(2) INFORMATION FOR SEQ ID NO:2317:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2317:
CGTCCBTGCC GCGGGCCC 18

(2) INFORMATION FOR SEQ ID NO:2318:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2318:
GCCCCGCTGC TTGGGCTGCT CTGCCGGG 28

(2) INFORMATION FOR SEQ ID NO:2319:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2319:
TCTGTGCTCC TCTCGCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:2320:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2320:
TGGTGGGGTG GGTCTTGGTG G 21

(2) INFORMATION FOR SEQ ID NO:2321:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2321:
CTGTCCCTGG TCCTGTG 17

(2) INFORMATION FOR SEQ ID NO:2322:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2322:
GGTCCCGCTT CTTC 14

(2) INFORMATION FOR SEQ ID NO:2323:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2323:
GGGGTTGTTG TTGTCTGG 19

(2) INFORMATION FOR SEQ ID NO:2324:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2324:
TGTCCTCTTT CTGC 14

(2) INFORMATION FOR SEQ ID NO:2325:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2325:
GCCTCGGGCC TCCC 14

(2) INFORMATION FOR SEQ ID NO:2326:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2326:
GGCTGGGGTC TGCGT 15

(2) INFORMATION FOR SEQ ID NO:2327:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2327:
GGCCGGGGGT CGGTGGGTCC GCTG 24

(2) INFORMATION FOR SEQ ID NO:2328:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2328:
GGGCTGGGGT GCTGGCTTGG GG 22

(2) INFORMATION FOR SEQ ID NO:2329:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2329:
GGGGCTGGGG CCTGGGCC 18

(2) INFORMATION FOR SEQ ID NO:2330:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2330:
GCCTGGGTGG GCTTGGGGGC 20

(2) INFORMATION FOR SEQ ID NO:2331:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2331:
GCTGGGTCTG TGCTGTTGCC 20

(2) INFORMATION FOR SEQ ID NO:2332:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2332:
GTTGTGTGGG GGGCC 15

(2) INFORMATION FOR SEQ ID NO:2333:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 27 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2333:
GCTGGGTCGG GGGGCCTCTG GGCTGTC 27

(2) INFORMATION FOR SEQ ID NO:2334:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2334:
CCCCCGGGG CCCC 14

(2) INFORMATION FOR SEQ ID NO:2335:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2335:
TGGCTCCCC CTCC 14

(2) INFORMATION FOR SEQ ID NO:2336:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2336:
GCTCCCCCT TTCC 14

(2) INFORMATION FOR SEQ ID NO:2337:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2337:
CGGACGAAGA CAGAGA 16

(2) INFORMATION FOR SEQ ID NO:2338:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2338:
GGCTTTGTGG GCTC 14

(2) INFORMATION FOR SEQ ID NO:2339:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2339:
GCCTGCTCTC CCCC 14

(2) INFORMATION FOR SEQ ID NO:2340:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2340:
CCCGGCCCG CCBCGBCC 19

(2) INFORMATION FOR SEQ ID NO:2341:
(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2341:
CCCGGCCCG CCBG 15

(2) INFORMATION FOR SEQ ID NO:2342:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2342:
CCCGGCCCG CCBGGBCC 19

(2) INFORMATION FOR SEQ ID NO:2343:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2343:
CCCGGCCCG CCBG 15

(2) INFORMATION FOR SEQ ID NO:2344:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2344:
CCCGBCCCCG CCTCBG 17

(2) INFORMATION FOR SEQ ID NO:2345:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2345:
CCCGBCCCCG CCTC 14

(2) INFORMATION FOR SEQ ID NO:2346:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2346:
CCGGCCCCGC CTC 13

(2) INFORMATION FOR SEQ ID NO:2347:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2347:
CCGGBCCCCG CBTBGTGCC 19

(2) INFORMATION FOR SEQ ID NO:2348:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2348:
CCGCBTBGT GCC 13

(2) INFORMATION FOR SEQ ID NO:2349:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

EPI-109

559

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2349:
CCCGGBCCCB CCBGTGCC 19

(2) INFORMATION FOR SEQ ID NO:2350:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2350:
CBGBBCCCGC CTCGTGCC 18

(2) INFORMATION FOR SEQ ID NO:2351:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2351:
CCCGCTCGT GCC 13

(2) INFORMATION FOR SEQ ID NO:2352:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2352:
CCGGCBCCGC CTCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:2353:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2353:
CCGGCCCCGC CBCBTGCC 18

(2) INFORMATION FOR SEQ ID NO:2354:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2354:
CCCGBCCCCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:2355:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2355:
CCCGGCCBCG BCTCG 15

(2) INFORMATION FOR SEQ ID NO:2356:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2356:
CCCGGCCCBG CCTBG 15

(2) INFORMATION FOR SEQ ID NO:2357:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2357:
CCCGGCBCBG BCTCGTBCC 19

- (2) INFORMATION FOR SEQ ID NO:2358:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2358:
CCCCGCCCCG CCBG 15
- (2) INFORMATION FOR SEQ ID NO:2359:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2359:
CCCCGCCCCG CCBG 15
- (2) INFORMATION FOR SEQ ID NO:2360:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2360:
TCCBTGCCG GGG 14
- (2) INFORMATION FOR SEQ ID NO:2361:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2361:
TCCBTGCCBC GGGC 15
- (2) INFORMATION FOR SEQ ID NO:2362:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2362:
TCCBTGCCBC GGGC 15
- (2) INFORMATION FOR SEQ ID NO:2363:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2363:
TCCBTGCCBC BGGC 15
- (2) INFORMATION FOR SEQ ID NO:2364:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2364:
GTCCBTGBCG CGG 13
- (2) INFORMATION FOR SEQ ID NO:2365:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2365:
TCCBTGBCG GGG 13
- (2) INFORMATION FOR SEQ ID NO:2366:
(i) SEQUENCE CHARACTERISTICS:

EPI-109

561

(A) LENGTH: 21 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2366:
TCTGBGCTCC TCTBCCCTGG G 21

(2) INFORMATION FOR SEQ ID NO:2367:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 20 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2367:
CTGTGCBCTC BRCBCTGGG 20

(2) INFORMATION FOR SEQ ID NO:2368:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2368:
TGTGBTCCBC TBGBCTGGG 19

(2) INFORMATION FOR SEQ ID NO:2369:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2369:
TCTGTBCTCB BCTCBCTG 19

(2) INFORMATION FOR SEQ ID NO:2370:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2370:
TGCTCCTCBC BBCTGGG 17

(2) INFORMATION FOR SEQ ID NO:2371:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2371:
CTCCTCTBGC CTGG 14

(2) INFORMATION FOR SEQ ID NO:2372:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2372:
GTGCTCCBBT CBBCTGGG 18

(2) INFORMATION FOR SEQ ID NO:2373:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2373:
GTGCBCCBBT CBCCTGGG 18

(2) INFORMATION FOR SEQ ID NO:2374:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

EPI-109

562

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2374:
TCTGTGCBCC TCTGBBCT 18

(2) INFORMATION FOR SEQ ID NO:2375:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2375:
TBBTCCTBBC BCCTGG 16

(2) INFORMATION FOR SEQ ID NO:2376:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2376:
TGTGCTBBTC BCBCBTGGG 19

(2) INFORMATION FOR SEQ ID NO:2377:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2377:
GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:2378:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2378:
CTGTGCBCT CTC 13

(2) INFORMATION FOR SEQ ID NO:2379:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2379:
CBGTGCBCCB CTCBCCTG 18

(2) INFORMATION FOR SEQ ID NO:2380:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2380:
GTGCBCCBCT CBCCTG 16

(2) INFORMATION FOR SEQ ID NO:2381:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2381:
CBCCTCTCBC CTGGG 15

(2) INFORMATION FOR SEQ ID NO:2382:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2382:
CCTCTCBCCT GGG 13

(2) INFORMATION FOR SEQ ID NO:2383:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2383:
GCTCCBCTCG CCT 13

(2) INFORMATION FOR SEQ ID NO:2384:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2384:
TGCTCCTCBC GCC 13

(2) INFORMATION FOR SEQ ID NO:2385:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2385:
GTTGTTGBTC TGG 13

(2) INFORMATION FOR SEQ ID NO:2386:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2386:
GGTTGBBBTT GGTCTTGG 18

(2) INFORMATION FOR SEQ ID NO:2387:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2387:
GGTTGTTGBT GBTCTG 16

(2) INFORMATION FOR SEQ ID NO:2388:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2388:
GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:2389:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2389:
GGGTTBBBGT TGBTCTGG 18

(2) INFORMATION FOR SEQ ID NO:2390:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2390:
TTGTTGTGBG TCTGG 15

(2) INFORMATION FOR SEQ ID NO:2391:
(i) SEQUENCE CHARACTERISTICS:

EPI-109

564

(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2391:
GGGTBGBBGB GTCCGCTG 18

(2) INFORMATION FOR SEQ ID NO:2392:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 18 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2392:
GGGTCBGBGG BTCBGCTG 18

(2) INFORMATION FOR SEQ ID NO:2393:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2393:
GGGTBGGTGG GTC 13

(2) INFORMATION FOR SEQ ID NO:2394:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2394:
GGGTCGGBGG GTCBGC 16

(2) INFORMATION FOR SEQ ID NO:2395:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2395:
CCTGGGTGGG CTT 13

(2) INFORMATION FOR SEQ ID NO:2396:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2396:
GGGTGGGCTT GGG 13

(2) INFORMATION FOR SEQ ID NO:2397:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2397:
CCTGGGTGGG BBTGGG 16

(2) INFORMATION FOR SEQ ID NO:2398:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2398:
CCTGGBTGGG CBTGGG 16

(2) INFORMATION FOR SEQ ID NO:2399:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

EPI-109

565

(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2399:
GCCTGBGTGB BCTTGGG 17

(2) INFORMATION FOR SEQ ID NO:2400:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2400:
CCCAVGVCVV CCCAGGC 17

(2) INFORMATION FOR SEQ ID NO:2401:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 13 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2401:
AGCCCACCCA GGC 13

(2) INFORMATION FOR SEQ ID NO:2402:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2402:
BCCTGGGTGG GCTB 14

(2) INFORMATION FOR SEQ ID NO:2403:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2403:
GGTGGGCTTG GG 12

(2) INFORMATION FOR SEQ ID NO:2404:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2404:
CCBBGGTGGG CTTGGG 16

(2) INFORMATION FOR SEQ ID NO:2405:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2405:
CTGGGTGGGB BTGGG 15

(2) INFORMATION FOR SEQ ID NO:2406:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2406:
CCBGGGTGGG CTTGG 15

(2) INFORMATION FOR SEQ ID NO:2407:
(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 12 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2407:
GGGTGGGCTT GG 12

(2) INFORMATION FOR SEQ ID NO:2408:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2408:

CCTGBGTGBG CBTGGG

16

(2) INFORMATION FOR SEQ ID NO:2409:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7800 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2409:

GGCGGCGCTGG	AAAGCTGAGA	TGGAGGGCGG	CATGGCGGGC	ACAGGCTGGG	CTGCTTTTCT	60
TTTCTGGGCC	TCTGTGGTCT	GTTTTTTCT	GGCCCTGCTG	GGGCGCTCTC	CGCCGCCCGC	120
CTGGCTCCCG	GBGCCCCTGB	TGGGCBTGCC	GTGGTCTTGG	CCCTCCTTTG	GCTGCCGTGC	180
CCGCTCCCGG	GCCTCCTGGC	GGGTGGCCGT	TGGGCCCGTG	TCCCCCTGGG	GCCTGGGGCT	240
CCCTTCTCTC	CCCCCTTCTG	CTGGGCTCTC	GCTGCTGCTG	GTGCTGTGGC	CCCCGTACAC	300
CGAGGAGCCC	ATGATGGGCA	TGCCACAGAC	GACAGGCGTB	CBCCGBGGBG	CCCBTGBTGG	360
GCBTGCBCB	GBGBCBGGC	GGCGCCGTGC	CGCGTCTTGG	TGGCGGCGGG	TTCCGCGCCG	420
CGCGGGGGCC	CTCCGCTCCG	TTCCGCGCCG	CGCGGGGGCC	CTCCGCTCCG	GGGTGGGGGC	480
CCCCCGCGCG	CGCCTCGGGG	CTGGGGCGCT	GGTGGCGGGG	CCGCGCCTCC	GCCTGCCGCT	540
TCTGGCTGGG	CCCCGGGCGC	CCCTCCCTCT	CTTGCTCGGG	TCCCCGTGAC	AGCGCGTCTT	600
GTGTCTCCAG	CAGCATGGCC	GGGCCAGCTG	GGCCCCBCBG	CGCGTCTTGT	GTCTCCBGB	660
GCBTGGCCGG	GCCBGCTGGG	CCCCACAGAG	CAGTGTCTGT	GTGGGCAATC	TTGCCTTCCC	720
AGGGBCBGBG	CBTGTCTTGG	TGGGCBTCT	TGCCTTCCCB	GGGCCCTTTT	CTGGTGGGGT	780
GGTGTCTTGG	TTGGGCTTTC	TTCTGTTCCT	BCBGBGCBGT	GCTGTGTGTG	GGCBTCTTGC	840
CTTCCCBGGG	CCCTTTTCTG	GTGGGGTGGT	GCTGTGTGTG	GGCTTTTCTT	TGTCCCTTTT	900
CCCCTGGGTC	TTCCCTCCTG	CTCTTTTTTC	ATTTGCTCTC	CTATTACTTT	CTGTGTCCAT	960
TTTTTCATTA	ACCGAGCTGT	BTTTGCTCTC	CTBTBTCTTT	CTGTGTCCBT	TTTTTCBTB	1020
BCCGBGCTGT	GCCTGTGTCT	GTCCTCCTGC	TTCGTTCTCT	TCGTTCTCTG	TTGGTGGCCT	1080
TGCCGCTCCT	GCTCCTCCGG	GCTGTGGGTC	GTGGCCCTGG	CTCCGCTGGG	TGGGCTCCCC	1140
TGGCCTTCGC	TGGCTGGCGG	CGTGCGGGTC	TTGCTCTGGG	CCTGGCTGTG	GCCGTGGTTG	1200
GGGGTCTTCG	CTGCCTCCGT	TGGGGTGGCT	CTCTGAATAT	TGACCTTCCT	CCATGGCGGT	1260
CCTGCTTGGA	TTCTCCCGAT	CTCTGGBTBT	TGBCCCTCCT	CCBTGGCGGT	CCTGCTTGGB	1320
TTCTCCCBG	CCTTCTCTGG	TTCTCTTGTG	TTTTTGGGGG	TTTGGCTTAC	AGTAGAGTAG	1380
GGGATTCCAT	GGCAGGAGCC	ATCTTCTTCA	TGGACTCCTT	CAAGGAGACC	TTAGGTTTCT	1440
GAGGGACTGC	TAACACGCCA	TCTGGAGCBC	BGTBGBGTBG	GGGBTTCBCT	GGCBGBGCC	1500
BTCTTCTCB	TGBCTCCTT	CBGGBGBCC	TTBGGTTTCT	GBGGGBCTGC	TBBCBGCGB	1560
TCTGGBGCTG	TCTTTTGGG	GTTTGGCTTG	CCTTCTCTGG	TTCTCTTBCB	GTBGBGTBGG	1620
GGBTTCBCTG	GCBBGBGCCB	TCTTCTTCTB	GGBTCCTTCT	BBGBGBCCCT	TBGGTTTCTG	1680
BGGGBCTGCT	BBCBGCCTBT	CTGGBGCGCC	TGTGTCTGTC	CTCCTGCTTC	GTTCTCTCTG	1740
TTCTGCTTGG	GTGCCCTTGC	CGGTCTCTGT	CCTCGGGGCT	GTGGGTCTCT	GCCCTGGGCT	1800
CGGCTGGTGG	GTCCTCCCTG	CCTTCTCTGG	CTGGCGGGCT	GCCCBGBBCC	GBGBCCCGGG	1860
CCGBCBGGCC	GTGGTTGGGG	GTCTTCTGTC	CCTTCGTTTG	GGTGGCGATC	TCTGAATATT	1920
GACCTTCCAT	GGCGGTCTCT	CTTGGAGBTC	TCTGGBTBT	GBCCCTCCBT	GGCGGTCTCT	1980
CTTGGBTCTG	GGGTGTCTCT	GCCTTCTGTC	TTCTCTTCTC	TTCTGTTGCC	GTCCGCGGGG	2040
CCCCCGGGG	CTGGCTGGCG	TCTTGGCGGG	CCTCTTTTCC	GGGCTCTTGC	GCTGGGGGGT	2100
GCTCCCGTGT	TTTGGCGCCC	TCTCTCTGGT	CGCGCTTGTG	TTTTTGGGGC	CGGCTTTGCC	2160
CGCCTCCCGG	CGCCTGGCCC	GGCCTTCTCT	GGCTGCGTGC	GCCTTCTGTT	CTTCTTCTCT	2220
GCTCTGGGGT	GTCTGGGCTT	TCTGTGTTCC	TCTTCTCTCT	TTTGGCGTCC	GCGGGGGCCC	2280
CCGGGCTTGG	CTGCGCTCCT	GCCCCGCTCT	TTTCCCGGGC	TCTTGGCGTG	GGGGGTGCTC	2340
CCGTGTGTTT	GCGCCCTCCT	CCTGGTCTGG	CTGTCTGTTT	TGGGGCCGGC	TTTGCCCGCC	2400
TCCCGGCGCC	TGGCCCGGCC	TTCTTGGGCT	CGGTGCGCGT	TCTGTCTTCT	TTCTTGGCGC	2460
AGGAGACAGG	GCAGGGCGAT	CAGGAGCAGC	GTAGCCAA	GGAGGACCAT	CGGGAACGCA	2520
GCTCCGGAAC	GCAGGACAGA	GGTGCCGCBG	GBGBCBGGGC	BGGGCBGTCT	GBGBCBGGCT	2580
GBGCCBBBGG	BGBBCBCTCG	GGBBCBGGGC	TCCGGBBCCG	BGGBCBGGGG	TGCCTCTGCC	2640
CTGTCCGCGG	GCTCTTGGGT	GGCTCGGGCC	CGCTCTTGTG	CTTGGCGCGG	GTTGGTTTCT	2700
GGGCTGTGTT	CTTGGCGGGC	TTTGGGTCTG	CTGGCTGGTC	TGGGCGGGCG	GTGCGGGGGG	2760
TGGCTGTGCT	TTCTGCTCTG	GCTCTCCCTT	CTCCTCCTTT	TCTCCTTCTC	TCTGTCTTGC	2820
CTCCTTCTCT	TGGGCTCTCT	TGGGCTGGGC	GCTCTTCCCC	TGGGCGGGCT	GCGGGCGGCT	2880
GTGCTGCTCT	TGCGGCTCTC	TGGGGGTGCT	CCTTCCCTTT	CCCCGCTCGT	GGGTTTGGC	2940
GGGCTGGGCT	GCCCTGGGGG	GTCTGGGCTT	TTTGGGGTCT	GCTGGCTGCT	GCTTGGGGCC	3000
GCCTGGGCTT	CCCTGTGCCC	CTTTCTCTCT	CTGGGTCCCC	CTCCGCTTCC	AAGCTGCACC	3060
GCACAGACCG	GCGCTACAGG	ACAGAGCCAG	GCAAGCACCC	ATGGGGATCC	AGGCCAGCT	3120
GTTCCBBGCT	GCBCCGCB	GBCCGCGCT	BCBGGCBG	GCCBGGCBGG	CBCCCBTGGG	3180
GBTCCBGGCC	CBGCTGCTCA	GTGGCCCCCA	AAAGGATGAG	TAATACATGC	GCCACGATGA	3240
TCAATACCTT	TTTACTATGA	GGCCGTGTCT	GTCGTGTCTT	TCCTTTGCTC	TTGGTGTGTC	3300
TTTGCTGTGC	CCTGCCTCTC	TGCCCGTGTG	TGTCTGTGCT	TTCTTTTGGT	CTTGGTGTGT	3360
CTTTGCTGTG	CCCTGCCTCT	CTGCCCGTGT	CTGTCTGTGC	TTTCTTTTGC	TCTTGGTGTG	3420
TCTTTGCTGT	GCCCTGCCTC	TCTGCGGGGG	TGGCTTCTCT	CCGCGTCTCT	GGGCCGTCCC	3480

EPI-109

567

GTCCCTCGGC	CCCCGCGCCG	GCTCGGCTCC	TCTCCCTCTG	GCCCGGCTCG	GGGCGGGGCG	3540
GGGCGGTGGG	CGGGCGGCGC	TGCCCTGCGC	GCGGCGCTGG	CCCCTGCTGG	CCGTGCGCTG	3600
CGCGCTGCTG	GCTGCCCTGC	TGGCCGCGCC	GGGCGCTGTC	CGCCTCTGCG	GGCGCTGTCT	3660
CCTGGCTTGT	CTTCCGGCTC	TTCTGCTGGG	GTGGGCTGGG	GCGGCCGCGC	CGGTGCTGGG	3720
GCTCCTCGGG	GGGGGGGGCT	CTTCCGGGCT	GTCTCCCTCC	GGGGCGGGGG	TTTCTGGCCG	3780
TGGGGGTCTT	GCCTGGCCTC	CGGGCTCCTG	CTTGTCTTGC	TTTCTTCTC	TGGTGGGTTG	3840
TGGCTCGGGG	CTCCGTGGGT	CCCTGGCGCC	CGTTTGTGTT	TTGTCTTTTC	CCCTGGCGTC	3900
CCTGTGCCCC	TCTCCTCTCC	TTCTCTGCT	TCTCGCTCTC	CTTTGTGGGG	CCCTCCCTGC	3960
TGCTCTTGGT	TTTGGGCTTT	TTTTCTCTTC	CTCCTTTTTC	GTGCGTGGGC	CTCCGCACGC	4020
CTCTTGGCAC	TCTCTGCGCA	GGGCAGCGCC	TTGGGGCCAG	CGCCGCTCCC	GGCGCGGCCA	4080
GCAGGGCAGC	CAGCAGCGCG	CAGCCGACGG	CCAGCATGCT	TCTCCTCGG	CTACCACTCC	4140
ATGGTCCCGC	AGAGCGGAC	AGGCGCBCGC	CTCTTGCCBC	CTCCTGCGCB	GGGCBGCGCC	4200
TTGGGGCCBG	CGCCGCTCCC	GGCGCGGCCB	GCBGGGCBGC	CBGCBGCGCG	CBGCGCBGCG	4260
CCBGCBTGCT	TCCTCCTCGG	CTBCCBCTCC	BTGGTCCCGC	BGBGGCGGBC	BGGCGCTGCC	4320
CGCGGGGCTG	TGCGCTTGGC	GCTCCCGTGC	TCGGTTCTCT	GTCTCCCGGT	CCCCCTTGCC	4380
TGGCGTCTCG	GGCCTTCGTC	CTCTTCTCTC	TCTTCTCTCC	GCTCGGTGGG	GGCTGCTTGG	4440
TGGGGGCTCG	TGCTCGGGGG	TCCCGGGGCT	TCTGGCCCTT	GCCGTTTATG	GTGGCTAGGT	4500
GGGGCGTTTC	TGGTGGCTBG	GTGGGGCGGG	GTGGGTBGGC	CGTGTCTGGG	GGTTGGCCBT	4560
TTGGGTTGCC	TCTTGGTGGT	GCGCCGGGGC	CGCTTGGGCT	TTCTTCTCCT	TCGGGCCCTC	4620
GGGCGGCTGC	TTGTGGGCTC	CTCCCGGGCG	GCCTCCCGCG	GCGGGGGCTT	CTTGGCGCTG	4680
GCGGGGGGGC	CTCCTGCTCT	GTGGCTGGGC	GTTCTTGGT	GTTCTGGGTG	GTGGCGGGCG	4740
TGGTGGCCTC	TGTGGGGGGC	CGCGGCTGCB	GGGGTTGCCT	GTCTGCTTCG	TCCTTTGCGC	4800
TCCCGGGGCG	CGGGGGTGGG	TAGGCGGTGT	GTGGGGTTG	GCCATGTTGG	TTGCCGGGCC	4860
CGCGGCTGCA	GGGGACAGGG	GCTGTAATCT	TCATCTGCAG	GTGGCATGCC	AGTGAAATTT	4920
AGATCATCAA	AATCCACAT	CTGTGGATCT	GTAATATTTG	ACATGTCTCT	TTCAAGTTTC	4980
GCAATGTTTT	GATCTAAGTC	AAGCACCAGC	CAGGCBGCGG	GCTGTBBTCT	TCBTCTGCBG	5040
GTGGCBTGCC	BGTGBBBTTC	BGBTCBTCBB	BBTCCBCBT	CTGTGGBTCT	GTBBTBTTCG	5100
BCBTGTCTCT	TTCBGTTTTCB	GCBTBTGGTT	GBCTBBCTG	BGGCBCCGGC	CBGGTGGCTC	5160
GGTGTCTCTG	CCCCGTGTTG	TGCGGCGCTC	GGTTGGTGTG	GGCCCTGTGG	TGCTTCGTTT	5220
CCCCCTCTTT	CTCTTTGTTT	GGGGGTTCTT	GTGGCGGGCT	GCTTGTCTCG	TTCCGCCCTG	5280
TCGGGCGGGG	AGCCTCTCTC	CTCTCCCCAG	ATCCGCGACA	GGCCGCGAGC	AAGAACCAGC	5340
GCAACCAGGG	CGCGTCCGCA	CAGACTTGGA	GGCGGCTGCA	TGCTGCTACC	TGCTCCAGAA	5400
GCGTCCGGTG	GCCGCGCGCG	CCTGTGCGGC	GGGBBGCCTC	TCTCCTCTCC	CCBGBTCCGC	5460
GBCBGGCGCG	BGGCBGBBBC	CBGCGCBBC	BGGGCGCGTC	CGCBGBBCT	TGGBGGCGGC	5520
TGCBTGTCTG	TBCCTGTCTG	GGCGGGBBGC	CTCCGGTGGC	CGCCGCGCGT	CCGGTGGCCG	5580
CCGCGCCTCT	CTCCTCTCCC	CGTGGCCCTG	CTGGCGGGT	CCTGCCCTCC	TGTCCTCTTT	5640
TCTTTTGTCT	TCTTGTCTTC	CCGTCTCTGC	TTTGTCTGTC	CTCCCCGTCT	CCTCCCACTG	5700
CTTCTCCCGG	GGGCTTCCCC	GGCTTCGGGT	GGCCGCTGTC	CGGGGCTCCG	GCGCGGCGGC	5760
GGCTTCGCGT	GCGGGTGGGT	GGCGCGGGCT	GCCGGTCCG	CGCGGCGCCT	GGGCCCTTGT	5820
GCTGCTTTTT	GCTTGTTCGG	TTCTGGCTGC	TCCGGTCTGT	GTGTGSGTTG	TTTGTGTTCT	5880
TCTTGGGTGT	GGGCTTTGCG	GTTTTGGCTG	TGGGCCCTTT	GGGGCCTTGG	CTTCTGGCTC	5940
GTCTGTCTCT	CCCGTCTCCT	CCCACTGCTT	CTCCCGGGG	CTTCCCGGCG	TTCCGGTGGC	6000
CGGTGTCCCG	GGCTCCGGCG	CGGCGGCGGC	TTCCGCTGCG	GGTGGGTGGC	GCGGGCTGCC	6060
GGGTCCGCGC	GGCGCCTGGG	CCCTTGTGCT	GCTTTTGTCT	TGTTCCGTTT	TGGCTGTCTC	6120
GGTCTGTGTT	TGGGTGTTTT	TGTTTCTTCT	TGGGTGTGGG	CCTTGCGGTT	TGGCTGTGGG	6180
GCCCTTTGGG	GCCTTGGCTT	CTGGCTCCAT	CCACATGATT	GCTTAGATTT	GTGCTGTATC	6240
TCTCAGGATT	ATCACTGATT	ACACATCCAA	CCAGTGCCAG	CCAAAAGGAT	GCCTGAGGCC	6300
AAAGGGTTTT	CATCTTGAGG	CAAATTTGAG	GACBTCCBCB	TGBTTGCTTB	GBTTTGTGCT	6360
GTBTGTCTCB	GGBTTBTCBC	TGBTTBCBCB	TCCBBCCBGT	GCCBGCBBB	BGBTGCCCTT	6420
GBGGCBGBGG	GTTTCCBTCT	TGBGGCBGBT	TTGBGGBGGG	CTBBGBTGBT	CCBCBTCBCT	6480
BCCBCGTTGC	CCBCCBCBGB	GGTCBCCBCB	BTGBCCGTGT	BGGCBGCTGC	CCBBBGBBGB	6540
BTTTGCCBGG	CTGGTTGCB	GBBCTGBTTC	GGTTCGBGG	TGTTBGTGG	GBTGTTTGGG	6600
GBGBGGTCTG	BGTCCBCCGG	GBGBGCTTB	TCCBTTCGB	BGCTBGGCGG	TBBBGCCCTB	6660
CTBTCTGTBC	CBBCCCCCC	TCTGCBGCBG	BGTCTGTCTG	TGGCGCCTGG	GGCTCBGGGT	6720
CCGGGCTAAG	ATGATCCACA	TCACTACCAC	GTTGCCCACC	ACAGAGGTCA	CCACAATGAC	6780
CGTGTAGGCA	GCTGCCCAAA	GGACAATTG	CCAGGCTGGT	TGCACGAACT	GATTGGGTTC	6840
CCAGGTGTTA	GTGGAGATGT	TTGGGGAGAG	GTCTGAGTCC	ACCGGGAGGA	CGTTATCCAT	6900
TTCGAAGCTA	GGCGGTAAAG	CCCTACTATC	TGTACACAAC	CCCCCTCTGC	AGCAGAGTCC	6960
TGTCGTGGCG	CCTGGGGCTC	AGGGTCCGTC	CTGTCTGTGG	GCCTGGGGCT	CTTCTTTTGT	7020
GGGCTCTTTG	GTGGCTGTGG	CTGTGGTCTC	TGTGGTTGCT	GCCCTGGGTC	TGGGGGTGTG	7080
GCTTTGGGGC	CGTCTCTGCG	CTCCTCCTCG	TGGGCCCCCG	GTGBCBTTGB	GCBTGTCCGC	7140
CGGTGCCCGT	TBBGBGTGGG	CCCCCAGGCC	CAGCACTCC	ACTTGGGGGC	GGGTGGCCAG	7200
CACGAACAGC	ACCCAGAGGA	AGGGGGGCGG	CCCAGAAGGG	CAGCCCGCAG	GCCAGGATCA	7260
GGTCTGCTGC	GGCCGAGAT	AATGGCATT	ACCACGCGGC	GGCCAGCGC	ACGCCGCGCA	7320
TCCGGCCCCG	GTTCTGACCT	GCAGCCCCCG	TCTCCTTGGC	ATTCTTGGGC	CCCACTCACT	7380
CCCTCTCCCT	CCCCCTTGG	TGGGGCAGGG	ACGGGGTGB	BTTGBGCBTG	TGGGCGCGGT	7440
CCCGTTBBGB	CTGGGCCCCG	CAGCCAGGCC	ACTCCTACTG	GGGGCGGGTG	GCCAGCACGA	7500
ACAGCACCCA	GAGGAAGGGG	GGCGGCCCG	AAGGGCAGCC	CGCAGGCCAG	GATCAGGTCT	7560
GCTGCGGCCG	GAGATAATGG	CATTACCAAC	GCGGCGGCC	AGCGCACGCC	GCGCATCCGG	7620
CCCGGGTTCT	GACCTGCAGC	CCCCGTCTCC	TGGGCATTCC	TGGGCCCCAG	TCACTCTCT	7680
CCCTGCCCCC	TTTCTGGGG	CAGGGACGGC	CGTGTGTCTB	GTGGTGTCTG	CCGTTTGBGG	7740
TBTGGCGCTC	CBCCBBTTCC	CTTTTCTCCT	TGTTTTCCGT	TTCTCTTGCC	GTCTGTGGTT	7800

(2) INFORMATION FOR SEQ ID NO:2410:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6225-base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2410:

CTTGCTCCTG	GGGGCTCCT	GGTCCCTCTG	GCTGTTCCCG	GCCCTGGBC	GGGGCBGGGG	60
CCGCGTBGGC	GCGGCTCGCC	BGGBCGGGCB	GCGCCBGC	CBGCBGGCTC	BGCBTCCTGG	120
CCBCGGBBTT	CCGGTGTGCG	GGGCTGGTG	CCCTGGGGC	TCGGGTGCTG	CCTGTGCGCT	180
GCCTTCTTCT	CCTGGGTCTT	CGCCGGGGCC	CTTGCTGCCC	TGGCTGTGCC	CTGGGGGTCT	240
GGGTTGCGCT	GTCCCBGCB	GGBCCBGTC	CBTCCBGC	GTGTGTGCB	TBGCCTTCT	300
CCTGCBGCGC	BGGGGCGCG	GCBGCBTC	CTTTGGGCTT	TTCTCCTTTG	GTTTGBGCGC	360
CBGGBCCGCG	CBGCBGCB	GGGCGCGGC	GBGCBTCG	GCGGCGGGCB	GGGGGGCTCC	420
CGCCGCBGGB	GCTTBTGGC	TCCCBGGBC	BCCGCBCCG	CGCGBCGTT	TBCBTTGCGC	480
BCCGCBGTG	CGGCGCBCT	GBCGBBGTG	GGCGCBTC	GGGTGGCGCC	GCBGBBGTGG	540
CCTCCGCGCB	GCTGCBGGG	CBCCBTGBG	GGCCBGCCT	GGGGCGCGC	TCGCCGCGCC	600
CCCBCTBTCT	CCBGGGCCB	CGCGGTGCC	CCBGCBCB	BGGCCGGCB	GBCBCBGGCG	660
BGGBCBGGC	CGBTGCGCG	GCCBGGGTC	BTGGTGGGC	TGGGCTCCG	GGGTCTCTGC	720
CCCTCCGTGC	TGGTGGGGT	GGGGCTCCG	GGTCTCTGC	CCTCCGTGCC	GCGTGGGGCC	780
GCGCTCGCGC	GCCCCCCTT	GCCGGGTGG	CTCCGCGCG	GCGCCGGCT	GCCGGCCCTT	840
CGTGGGTCTT	GCTGGCGGG	TCCGGGTCCC	GGGGGTGGG	CGCBGTCCG	CGGCCBGGGG	900
TCCCTCTCTC	BTCTGCTCT	BCCTGCTGG	CTCTGGTCT	GBBGTBCCG	CBTGTBGGGG	960
CGGGGTGGG	GCTGCTCTC	CCGGCTCCG	BTGCTCTCC	CTGCTCBGC	CCCBGTGGGT	1020
BGGBCBBGG	CCBGCBBGG	CBGGGTGGC	TGCBTCTTC	CTGGTGGGG	CTGCTCTCCC	1080
GGCTCCGTG	TGTTGCTGG	TGTTTTCCG	TCTCTGGTCT	GCCTTCGGG	GTCGTCGGGG	1140
GCTGCBGCB	CCTCBTCBG	TCTTGCTGG	BGTGGCTCB	CCTGGGCTG	CBGGGCCBCC	1200
BGGBCBGGT	CBGCBGGBT	GGCBGGGTC	CTCBTGGCT	GGGTCBGCB	TCCTCTBGGT	1260
BGGCBGGGT	BCCBGBBGG	GCGGTCTCT	BTGGTGGGG	GCCTGGGCT	GCBGGGCCGC	1320
TCTTGCTGG	BGTGGCTCG	CCBGBGTCT	CCCTGGTCC	TGCBTCTGC	TCCGGGGCTG	1380
CBGCBBCCT	BTBGTCTCT	GCCTGGGTG	GCTCBGCTG	GGCTGCBGG	GCCBCCBGG	1440
GBBTGGCBG	BGGBTGGCG	BGGTCTCTB	TGGTGGGGT	CBCTGGBGG	BGGBGBGCB	1500
GGGGGTCTCT	BTGGTGGGG	TCCCTCTCT	CCGTCTCTG	TTTCTTTGC	GGTCTTGGCC	1560
CGGGTCCGG	GTGCGCGCC	GCCGCGGGC	CGCGCCCCG	CGGGGTGTC	CCCCCCCCG	1620
CCCGGCGCG	GCGCGGGGG	CGGCCCTCC	GCCCTCTGG	GCCGGCGCG	GCGTCCGGCC	1680
CTCGCGCTG	GGGTCTCCT	TCCCTCCCT	TGCGCCTGC	CTCTTGTCT	TCTGCGTCCG	1740
CTGCTTCTC	CCCTCTCCT	GGCGTGGCC	TGCTGTCTC	GTCCTGTGC	CCTTCCGTGG	1800
TGCTGTTGT	TCTTCTGCC	TGGTGTGCT	GGTGTGGT	GTGGTGCCT	TGCGCGTCT	1860
CGCCTGCTT	GGGCTGGCT	CTTCCGGGT	GGCTTGGGG	CTCTCTGGT	TGCCCTTTCT	1920
TCTCGTGGT	CCTCTCTCC	CTGGCTGGT	CGTGTCTGG	GGTGGTCTC	CTCTCCCTTT	1980
CCCTCTGGC	CGTTTGTCT	TTTTTCTGT	TTCTCTTTT	CTCTGTGTT	TCCGTTTGGC	2040
TTGCTGCTT	CGGGGTGTC	TCCCTTGCC	CTGTGGGCT	TCCCTGGTC	GGTCTTCTC	2100
TTGGGGTTC	CCCTTCTTG	TGGGTGGCT	CGTGTGCTT	TTTCTTCTT	GGGGGTGGCC	2160
GTTGTGGCG	GTGTGGTCC	CCTTGCTCT	GCTGGTCTT	CCTCGGTGB	CGCGCTCGB	2220
CTCGGTGGG	CCGGTGGTB	GCGCGGCB	CBGCGGGB	GCCCTGCGC	CCBGBGTBC	2280
CTGCBGGGB	BGTBGGCTT	GCBGCBGG	TCCBGGGB	GTGCBGCB	CCBGTBGGC	2340
TBCTCTGTC	TCTBTGTC	CGTCCGTGT	GTGCBGCG	CTGTGTGTC	BGGCBGCTG	2400
GGCCCCGCT	GCTGCTCTC	GTGCGGCTC	GTCCTTATG	GTACCGTCG	TGTGGTGGC	2460
TCCGGTGGG	CGGTGGTGG	GCGCGCGCG	TCCGTGGCT	CCGGCTCTT	TTTCCCGCT	2520
CCGTCCGGC	GGGGGCTTG	GTCTCCCTC	TGCTTCTBT	TBCCGBCCG	CGBGGCCGCG	2580
BGGGTGGBT	GGGCTGGGT	TTCTCCCGC	CGTCTCBCC	CBCCGCGCT	BGCTCBGCG	2640
CTBBGCTGC	TGTTTCTGB	GCTCCTTGG	BGGCCBCCB	CBGCBGGB	BBBCTCBTG	2700
GBBBTBBTC	CBTTCTGBB	BBBGGGBTC	BBBBCCTCC	CGTCCCCGT	TGCGCTGGC	2760
CGCGCTGCG	GTTCTCTGT	GGTTCTCCC	CGCGTCTCT	CGGTCTGTT	CCTTTGGGG	2820
CTTCTGTCT	TTTTGGCTG	TCTTTCTCT	CTTGGGCTC	TTTCTTTCT	TGTGCTCGG	2880
TGTGGGTCC	GCTGGTCTT	TGCCCTGTG	GTTTCTGTC	CCCGTTCGC	TGGCGCGCG	2940
TGCGGTTTC	TGCTGGGTT	CTCCCGCGC	TCTCCGGTC	TGTTGCCTT	GTGGGCTTCT	3000
TGTCTTTTG	CTGTTCTTT	TCTGCTTGG	CGTCTTTTC	TTTCTTTGT	CTCGGTGTG	3060
GTTCCGCTG	TCCTTTGCC	TGTGTGTTT	TGCTGGGBC	TGCTBCTGC	GATTTCTGB	3120
GGBBGBCCC	TGCTBCTCB	CBGCTTBCG	TCTGGGBCB	BGBGBBBGB	GCBGCBGGG	3180
GBGBGBBGB	BGCBGCBCT	TCCBGBBGB	GCTGCCTGB	CBBTGCTGG	TTTTCTTTT	3240
CBGTCTTGG	TTTTBTBCT	CCBGBBGGC	BGBGBGGGG	CBGGGCTTT	TCTTCTCTG	3300
CTGGTTTTT	TTTCTGGCA	GTGGGTGGG	TGGGGGTTG	GGTGGCTTC	TGTTCCCTG	3360
GGGTGTCTC	TTGCTCTGG	CTTTCTCCC	CTTTTCTTC	CTGTCTGTT	TCTGGGGCT	3420
CTCCTCTGT	TCTGTCTCT	TGCCCTGGC	CTCTTCCCT	TCTGTCTCC	TGTCCCTGT	3480
TCCGCCCGT	CTTCCCTCT	CTGACCTCT	TTTCTCCCG	TGGGTGGGG	CCTGCCTGT	3540
CTCTGCTCC	TGGCTTGGG	TTTCTCTGT	TGCTCTTCT	CCTCTGTGG	CTGGCTTCT	3600
CCTTCTTTT	TCTTCTGGG	TGCCCTTCT	TCCTTTCTT	GGTCTTGGT	GCTTGGGCT	3660
GGGCGTCTT	GGGTGCBGG	CCBCTCCTG	TGCGCCTGG	CGCTGCTGT	CGTCCGCTG	3720
CTGGGGGGC	GGGGTGGCT	GGCCCTGCT	GCCGACGAC	CCCCGGCCG	CCCCAGGCT	3780
GGGGGGCTG	GTTCTGCGC	TGGTGGGCT	GGGCGCTCT	GGGGGCTGG	TTTCTGCTG	3840
CGCTGGGCG	CTGGCGTCT	GGGGTGGGG	GCCGGGGGG	CGGGGGGGC	CTGTTCTGT	3900
GCCTGGGGT	GCCTGTGGT	GCCGGTTGG	CCGGTTGGT	GCGCCGCTC	GCTGCCGCT	3960
GTTGGCTGG	TCCCCCGCC	CGTTTCTGT	GGTCCGCGT	GGGTGCTCC	GTTCTCTGT	4020
CCGCTGCTG	CTTGTCTTC	CGCCGTGGC	GGCGTGGTG	TCCGCCCCC	CTGGCCTCT	4080
GCTCGGGTC	TGGCTGGTT	CCGTTGCCCT	TGGCGCGGT	CTTCTTCTG	GTGGCTGTC	4140
GCCCGGCCG	TCTCGGGCT	CTCGTGTTC	CTCTTGTGT	GTTCCGGCC	CTCCTTCTC	4200

EPI-109

569

TTCCGCCGCC	GCCGCTCCCC	GCCCCGCTCGT	CGCCCTGGCC	CGGCCCTCCTC	CTGGCCGCTG	4260
TCTCGGGCGG	CGGCCTTGGC	GCTCCGTTTG	GGGCTGCCTC	TGGCGCTTCC	GGCCCTCGGC	4320
CTGGGCGCTC	TCTTCCGCCCT	GTGCTGGTGG	CCCTCGTGGG	CCCCTCCTGG	CTCCGGGTGT	4380
CCTGTGGTCC	CCC GGCTGGT	GGCCGGGCGG	GTTGGGCGGG	CGTGGGCGCC	GGCGGGTCTT	4440
CCGGGCTGCC	CTTCTCCGCC	GGGGGTCCCG	CGTCCCTGCT	GTTCCCTGGG	CTCTTCTGCC	4500
TCTCTCCTGG	GTGGGTGCTG	GGTGCCGGGG	TCTCCGGGCT	TGCCCCGCGC	TGCTGGGCGT	4560
TCTGCGGTCT	TGGGGTTGTC	TGTGGCCCCG	CTCGTGTGCG	CCTCCGTCGC	CCGTGCGCCG	4620
CCTCGTCCCC	TCTTGGGTGC	GCGGCGGGCT	GGTCTGGGCG	TTTTGCTCCT	TCCTGGGCGT	4680
CTTGGGGTGC	BGGGCCCCBTC	CTGCTGCGCC	TGGGCGCTGC	TGTGCGTCCG	TCTGCTGGGG	4740
GGCCGGGGTG	GCTGGGCCCT	GCTTGCCGCA	CGACCCCGGG	CCGACCCGAG	GCTCGGGGGG	4800
CTGTGTTCTG	GCGCTGGTGG	GCTTGGGCCC	CTCTGGGGGC	TGGGTTTCCT	GCTGCGCCTG	4860
GGCGCTGGCG	TCTTGGGGTG	CGGGGCGGGG	GGGCCGGGGG	GCCGCTGTTC	GTGGGCTGGG	4920
GGGTGCCTGT	GGCTGCCGGT	TGCCCCGGGT	GGTGGCGCCG	TCCTGCTGCC	GGTGGTGGG	4980
TGGGTCCCCC	CGCCCGTTTC	CTGGGGTCCG	TGGGGGTGTC	TCCGGTTCTC	CGTGCCGCTG	5040
CTGCCTTGTC	TTTCCGGCCG	TGGCGGCGTG	GTGGTCCGCC	CCCCCTGGCC	TTCTGCTCGG	5100
GGTCTGGCTC	GTTCCCGCTC	CCCTTGGCGG	CGGTCTTCTT	CCTGGTGGCT	CTGGGCCCCG	5160
CCGGTCTCGG	GCGTCTCGTG	TTCGCTCTTG	TGCTGTTCCG	GCCGCTCCTT	CCTCTTCCCG	5220
CGCCGCGGCT	CCCCGCGCGC	TGCTGCGCCT	GGCCCGGCGT	CCTCCTGGCC	GCTGTCTCGG	5280
GCGGCGGCCT	TGGCGCTCCG	TTTGGGGCTG	CCTCTGGCGC	TTCCGGCCCT	CGGCCTGGGC	5340
GCTCTCTTCC	GCCTGTGCTG	GTGGCCCTCG	TGGGCCCTC	CTGGCCTCCG	GTGCTCTGTG	5400
GTCCCCCGGC	TGGTGGCCGG	GCCGGTTGGG	CGGGCGTGGG	CGCCGGCGGG	TCCTCCGGGG	5460
TGCCCTTCTC	CGCCGGGGGT	CCC GCGCTCC	TGCTGTTCCC	TGGGCTCTTC	TGCCCTCTCT	5520
CTGGGTGGGT	GCTGGGTGCC	GGGGTCTCCG	GGCTTGCCCC	GCGCTGCTGG	GCCTTCTGCG	5580
GTCTTGGGGT	TGTCTGTGGC	CCC GCTCGTG	TGCCCCCTCG	TGCCCCGTCG	CCGGCCTCGT	5640
CCCCTCTCTG	GTGCGCGGCG	GGCTGGTCTT	GGCGTTTTGC	TCCTTCTCTG	CTGCCCCBGT	5700
TTTTGBCCTT	CBCBTGCCGT	GGGGBGGBCB	BTGGCTGCCT	CCCCGGGGTT	TCTGCTGCTT	5760
GCTGCTTCTT	TCCCGTCTCC	CTTCTTTCCC	GTCTCTTTT	TGCCCTCTTG	GGTTCCTGTT	5820
GTTTCTGGCC	TGCTTGGTGG	CGGCTTGTGC	GTTTCTCTCT	TCTTCTCTTG	GGTCTCCGCT	5880
TCTGCTCTTG	CCTTTTCTTG	TCTCTGTGCG	GCCGTTCCCT	CTCCGGCGTC	CTCCTGCCCT	5940
GTGCTGTTTG	CCTCGGGTGG	TGCGGGTCCC	GGTGCTCCCC	CGGCGGGCCG	GCTGGTTGCC	6000
TGGGCTGTGC	TGGTGGGGTG	TGGGCGCGCT	GGGTGGGGGG	TGTGGTGGGC	TCTTCTGTGG	6060
CCTGTGGGGC	GTTTGGTGTG	TCTGTGGGCG	TGTGCTGGGT	CTTGGGGCTT	CCTCCCTTGT	6120
GCTGGGTGCG	GCCTCCCCGC	CCCCCTTCTG	GGCCGGTGGC	CTGGCTCCTT	GTGGGCGCTT	6180
CTGGCTCTTG	CCCTGTCTCT	CTTCGCTCG	TGGCTGCTGG	GCTGC		6225

(2) INFORMATION FOR SEQ ID NO:2411:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7033 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2411:

CCTCCTTCCT	GGTCTGTCTG	CCBGBCBBBT	TGGGGBBGTG	BBGBGTTTTG	GBBCCBTGTT	60
TCCCBGTCTC	TGBGCTGTGG	CGCCCTGCTG	CTCTTTCTGC	TTCCCTTGGT	GGGTTGGGCC	120
GCTGGTTGTT	CTGGGGTTCT	TGCTGCCCTT	TCTGTCCCTG	TTTGCTGGTG	TCTGCGCCCC	180
CBBCBGBBGB	BGCBGBCBBB	TTTGGGBBGT	GBBCBGTTTT	GGBBCCBTGT	TTCTGTGCG	240
CTCGGCCTGG	TCCCGGGGGT	CTCCTCTTGT	TGTTGCTTGC	GCCTCCTGCT	GGGGGTCCCT	300
CTGTCTTGT	TTTGGGGGCG	GGCCCGGCGG	TGCTCTTGGT	TTGGGGGTTT	CCGTGGGGGT	360
TCTCTGGGCC	CGGGCCTTGC	CCGGCCGTGG	TCCCGGCTTC	GTTCTGTCT	CCGTCTCGGC	420
TCTTCTGGGG	CCTTGCGCTG	TCTTGGTGG	CBCCGTCCBG	TGBTGGTGG	GTBCTTGTG	480
CTGCBGCGCT	CGGCCTGGTC	CCGGBGBGCG	CGCGGGCCGG	GGGCTGCTGG	GGGTTGGGCC	540
GGGGTGCCCC	CGCGCTGGGT	GCCCTCGTCC	TCTGCGGTG	TGTCTCCTGC	CTCTGGTTCC	600
CCGCTGCGCC	CGTTGTCTCT	TGGGGTGGCC	TTCGCTCCCG	GGTCTGGTTC	TTGTGTTGGG	660
GGTCCCTTTT	TGGGCCTGTT	GTGGCGTGGC	TTGTGTGTTT	GGTTTCTGCC	CTGTCTCCCG	720
GCCTCCCCCG	BGCCTCCCCG	GGGCBGBBGT	BCTTTTGBGG	GGGBCBGBB	TGTCTGGGCB	780
TTGCCBGGTC	CTGGGBBGB	BGCCCCBGGC	BGBBCCBGB	GTGCGGGCB	CGCGGGCCGG	840
GGGCTGCTGG	GBGCCBTBGC	GBGGCTGBGC	CTCTTTTCTG	TTTTTCCCCC	CTGCCTTTGT	900
TTGGGTTCCG	TTCTTTTCTG	CTTCTTCCCT	GTGTCTCCTG	TCTCCGCTTT	TTTCTTCGTC	960
TTTGTGTTTT	TCTCTTCTCT	GCTGBGCBGB	BTBTCTBGBT	TCTGGGGTGG	TCTGCBTTTT	1020
BBBGGCTTGB	GBBGTGCBGB	BCBTBTCTCB	BEGTBTBTBT	GBGGCTCCBB	GGBTBCCGCB	1080
CBTCTTCCCB	GGCBTTTTBB	GTTGCTGTCT	TBBGTGBGB	CTGBGBBGB	CTGTGBBGB	1140
BTCTGBCTT	CBGBGTCTCT	TTTCCBCCGT	TCTTGGCTTC	TTCTGTCCGT	TGGCTTCTCG	1200
TTGTCCCTGT	GGGCTTCTCG	TTGTCCCCCG	TTCGGGGGCT	GGTGGGGCCG	TCCTTGCCCTG	1260
CTGGGTTCTT	GGCTTCTTCT	GTCCGTTGGC	TTCTCGTTGT	CCCTGTGGGC	TTCTCGTTGT	1320
CCCCCTTCTG	GGGGCTGGTG	GGGCGCTCCT	TGCTGCTGCG	TTTTCTCTTT	CGCTTCTTTT	1380
TGCTCTCCTG	TTCTCTCTTT	TTTGTCTTTT	TTCTCTCTTT	TTCTCTCTTT	TCTTTTCTTT	1440
TCTCTTTCTG	TTTCTTTCTG	TCTCTGTTCT	CTCCTTTTTT	GCTGTTTTTT	CTCCTTCTTC	1500
TCTCTTTCTT	TTTCTCTGCT	CTTGTCTGCG	TCTTCTGCTG	GGCTCTGTGT	CGCGTGGGTG	1560
CGGCCGTGGC	CGGCGGBCCB	GGBTGTTGGG	CBGGGCBGGG	BCGGGCBGGC	GGCTCBTGT	1620
TGGBTCGGCB	GGBGGCBCTC	CTTGTGTTGG	CTTCTTCCG	CGGCBCTGCG	TBGCBBGBB	1680
BBGBGBGGGG	GGBGCBGTTG	GGGGTGBGB	CCCBTTBBTB	GGTGTGCBTC	CCTGTTTCCC	1740
CCCTTTCGTT	CTGCGTTTGC	CTTGGGCGTT	TTTTGTTTGT	TTTCTCTCTC	CGTCTTCTTT	1800
CTCCCCGTG	GGBBTTTCTG	TGGGGBTGGC	BTBCBCTG	GCBGCTCCBB	GBGCTBGBB	1860
BCTCBGBTGC	BGBBGBCTCC	TCTGCGCTCT	GBBCCGGTGG	GAATTCTGTT	GGGGBTGCGA	1920
TACACGTAGG	CAGCTCCAAG	AGCTAGCAAA	CTCAAAATGCA	GAAGCATCCT	CATGGCTCTG	1980

EPI-109

570

AAACGGGGGG	TGGCTTCTCTG	CCGCGTCTCT	GGGCGGTCCC	GTCCCTCGGC	CCCGCGCCGC	2040
GCTCGGCTCC	TCTCCCTCTG	GCCGCGCTCG	GGGCGGGGCG	GGGCGGTGGG	CGGGCGCGCG	2100
TGCCCTGCGC	GCGGCGCTGG	CCCTGCTG	CCGTGCGGTG	CGCGCTGCTG	GCTGCCCTGC	2160
TGGCGCGGCG	GGGCGCTGTC	CGCGCTGCTG	GGGCGTGTCT	CCTGGCTTGT	CTTCCGCTC	2220
TTCTGTGGG	GTGGGGCTGG	CGGCGCGGCC	CGGTGCTGGG	GCTCCTCGGG	GGGGGGGGCT	2280
CTTCCGGGCT	GTCTCCCTCC	GGGCGGGGGG	TTTCTGGCCG	TGGGGGTCTT	GCCTGGCCTC	2340
CGGGCTCCTG	CTTGTCTTGC	CTTCTTCTC	TGGTCCGGTG	TGGCTCGGGG	CTCCGTGGGT	2400
CCCTGGCGCC	CGTTTGTGTT	TTGTCTTTTC	CCCTGGCGTC	CCTGTGCCCC	TCTCTCTCTC	2460
TTCTCTGTCT	TCTCGCTCTC	CTTGTGGGG	CCCTCCCTGC	TGCTCTTGGT	TTTGGGCTTT	2520
TTTTCTCTTC	CTCCTTTTTC	GTGCGTGGGC	CTCCGCACGC	CTCTTGCCAC	CTCCTGCGCA	2580
GGGCAGCGCC	TTGGGGCCAG	CGCCGCTCCC	GGCGCGGCCA	GCAGGGCAGC	CAGCAGCGCG	2640
CAGCCGACGG	CCAGCATGCT	TCCTCTCGG	CTACCACTCC	ATGGTCCCGC	AGAGGCGGAC	2700
AGGCGCBCCG	CTCTGCGCB	CTCCTGCGCB	GTCGBGCGCC	TTGGGGCCBG	CGCCGCTCCC	2760
GGCGCGGCCB	GCBGGGCBGC	CBGCBGCGCG	CBGCCBGGG	CCBGCBTGCT	TCCTCTCTCG	2820
CTBCCBCTCC	BTGGTCCCGC	BGBGGCGGBC	BGGCGGGGTG	GBBBGGTTTG	GBGTBTGTCT	2880
TTBTGCBCTG	BCBTCTBBGT	TCCTTGGCBC	TCCTTGGCBB	BBCTGCBCTT	TCBCCBGBG	2940
CTGCBGBBBT	CBGGBBGGCT	GCCBBGBGBG	CCBGGCGCBG	CTTGGBBGTC	BTGTTTBCBC	3000
BCBGTGBGBT	GGTTCCCTTC	GGGCTTGTGT	GCTCTGCTGT	CTCTTGGTTC	CTTCCGGTGG	3060
TTTCTTCTG	GCTCTTGTCC	TTTCTCTTGG	CCCTTGGCCG	GGBTGGGGGG	TCCTGGBCGG	3120
CBCTGGBGGC	BTCCBGGGCT	CCCTTCCBGT	CCTTCTTGTG	CGCTGCCBGC	BCCCTTCTBT	3180
TCCBGBGGCT	GBTGGCCTCC	BCCBGGGBCB	TGBTTBGGTB	GBBBCTBGGB	GGCCGGCCTC	3240
CBCCBGGGBC	BTGGTCCCTC	TTGTCCGCTG	CCTCTCTGGG	GTTTTCGGGT	TGGGTGGGCT	3300
TTCTCTCTGG	GGCTGCTGCT	GGGCTCTTCT	TTTTGTCTCT	GGCCTGGTGC	TCTCTCGTGC	3360
CCTTTCCCTT	GGGTGTCTTG	TTTTTGTGGC	CTCCBCCBGG	GBCBTGGTCT	TTGTTTCTGG	3420
GCTCGTGCCC	CBTCCCGGCT	TCTCTCTGGT	TCCTCTCTCT	GTGGTGTTTG	GCCCTGCTTC	3480
CTTCTGCTGT	TTAGGGGGGC	AGCAGTTGGG	CCCCAAAGGC	CCTCTCGTTC	ACCTTCTGGC	3540
ACGGAGTTGC	ATCCCCATAG	TCAAACCTCTG	TGGTCTGTGTC	ATAGTCTCTT	GTGGTGTTTG	3600
GAGTTTCCAT	CCCGGCTTCT	CTCTGGTTCC	AAGGGAGBGG	GGGCBGCBGT	TGGGCCCCBB	3660
BGGCCCTCTC	GTTCCBCTTC	TGGCBGGBG	TTGCBTCCCC	BTBGTCBBBC	TCTGTGGTGC	3720
TGTCTBTGTC	CTCTGTGGTG	TTTGGBGTTC	CCBTCCCGGC	TTCTCTCTGG	TTCCBGGGGB	3780
GGGCBGCGGG	CBGTGGGCGG	GCBBTGTBGG	CBBBGCBGCB	GGGTGTGGTG	TCCBGBBBBT	3840
BTGGGGBGGC	BGBTGCBGGB	GCGCBGBGGG	CBGTBGCBBT	GBGGBTGBCB	GCGBGGCGTG	3900
CCGCGGBGBC	CTTCBTGGTB	CCTGTGGBGB	GGCTGTGGBB	GGGGGTGTGG	TGTCCGCTTG	3960
GCGGTCTTCT	CGGGTGTTC	TTCTCTGGGT	TGGCCTGCTG	CTCGTCTGGT	TGCTCCGCTC	4020
CCCGGGTTCG	TCTCGCTCTG	TCGCCCTTCT	CTTCTTGTCT	GTGTTCTCTC	CTTCTTGTCC	4080
TCTGBTGTTT	GTTBCCBBBG	CBTCCBGBBT	BGCTTTGCTB	TCTBBGGBTC	BCBTBTBGB	4140
BTBGGBBBBC	GCTGTBGGTC	BGBBBGBTGT	GCTTBCCTTC	BCBGBGBCGT	GCBGBBBTCT	4200
GGBBGGCTGC	CBGBGBGGCC	BCGGCCBGCT	TGGBTCTBGT	TTTBCBGBCB	GTGBGGTGTCT	4260
CCGGTGGCTT	TTTGTCTTGT	TGCTCTGCTG	TCTCTGTCTC	TTCCGGTGGT	TTCTTCTTGG	4320
CTCTTGTCTC	TTCTCTTGGC	CCTTGGCCCC	TTGBGCBGGB	BGCTCTGGGG	CBGGGBGCTG	4380
GCBGGGCCCB	GGGGGGTGGC	TTCTGCBCT	GTCCBGBGTG	CBCTGTGCCB	CBGCBGCBGC	4440
TGCBGGGCCB	TCBGCTTCBT	GGGGCTCTGG	GTGGCBGGTC	CBGCCBTGGG	TCTGGGTGGG	4500
GCTGBGGCTG	BGGCTCCGGG	CGGTCCBGCC	BTGGGTCTGG	GGGCTGGGCT	GCBGGCTCCG	4560
GGCGGGCGGG	TGCGGGCTGC	GTGCTGGGGG	CTGCCCGCA	GGCCCTGCGG	TCCBGGCBTG	4620
GGTCTGGGGG	CTGGGTGCB	GGCTCCGGGC	GGGCGGGTGC	GGGCTGCGTG	CTGGGGGCTG	4680
CCCCGACGG	CCTGCGCBCC	GGCTGGBGCC	CTGGGGCCCC	CCTGTCTTCT	TGGGGBGCGC	4740
CTCCTCGGCC	BGCTCCBCTG	CCCGBTCTBT	GCTTTCBGTG	CTCBTGGTGT	CCTTTCBGG	4800
GGBGBGBGGG	GCTGGTCCTC	TGCTGTCTCT	GCTGGTGTCT	BTGGTGTCTT	TTCCGCCCTG	4860
GGGCCCCCTT	GTCTTCTTGG	GGCCTCTTCC	CTCTGGGGGC	CGTCTCTCTC	CCTCTCTTGC	4920
GTCTCTCTCT	TTCTCTCTCT	CTCTTCCCCT	TTCCCGCTCT	TTCTGTCTCG	GTGTCTGGTT	4980
TTCTCTCTCT	GCTGGCTGCG	TGTCTGGCCT	CGCCTCTTGG	CCTGTGCTGT	TCCTCTCTCG	5040
GTTCTGTCTC	TCTCTGTCTG	TCGCCCCCTC	TGGGGTCTCC	CTCTGGGTGG	TGGTCTTGTG	5100
GCTTGGGCTG	GGCTCCGTGT	CTCCBGTGCT	CBTGGTGTCT	GCTGBGGGBG	CGTCTGCTGG	5160
CGCTGGTCTT	CTGCTGTCTT	TGCTGGTGTG	CBTGGTGTCT	TTCCGCCCTT	GGGGCCCCCG	5220
TGTCTTCTTG	GGGCTCTTCT	CCTCTGGGGG	CCGTCTCTCT	CCCTCTCTTG	CGTCTCTCTC	5280
TTTCTCTCTC	TCTCTTCCCC	TTTCCCGCTC	TTTCTGTCTC	GGTGTCTGGT	TTTCTCTCTC	5340
CGCTGGCTGC	CTGTCTGGCC	TGCGCTCTTG	GCCTGTGCTG	TTCTCTCTCC	GGTCTCTGTC	5400
CTCTCTGTCT	GTGCCCCCTT	CTGGGGTCTC	CCTCTGGCGT	GGTGGTCTTG	TTGCTTGGGC	5460
TGGGCTCCGT	GTCTCCBGTG	CTCBTGGTGT	CCGCTGBGGG	BGCGTCTGCT	GGCCTGTCTB	5520
GGCTTGGGTC	TCCGGGCGBT	TCTCTGCBGB	BGBTGTCTCB	BGGGCTCCGG	CBGTTCTCTC	5580
TTGCTGTGGT	CGCTGTCTGB	CCBGTCCGBC	CBGTBBTTCB	GBTCTCTCTT	GGCTCTCTBT	5640
TCTTCTGCB	BCBGTCTBGT	GGBGBCBBGB	BBBBBGBCTG	CCBGGGCCBC	GBGBBTTTTC	5700
BTGTTGGBTT	TTGCGBCGGB	CBGTCCCGCG	GGGTGCTGAG	TTTCTCTGGT	TCCTCCGBGC	5760
GCBCTGGGTC	GCTCCGCGTT	TCTCTGGTTC	CTCCGGTCCC	GCGGGGTGCT	GTCTGGTCCG	5820
TGTCGTGGCT	TGGGTCTCCG	GGCGGTTTCC	TTCTTTTCTC	GCCGGCCCTT	CTCACTGGAG	5880
GCACCGGGCA	GTCTCCATG	GGAGGGTGG	GCTTGGCCGG	GGCTGCCCGG	TGCTCTCTCT	5940
TGGCTGTGTC	CTCGTTGTCC	TTGGGGCCCC	CTCCCGCTGC	TCGGCCTCCG	TGTTCTTTGG	6000
CCTCTTGTCT	CGCTGTCTGT	CTTGTCCCCT	CCCCCTCTCG	CTTGGCTTTC	CCTCTTCTCT	6060
GTCTTCCAGG	CTTCTCTCCG	CTTCCGCTGC	TGGGGCCCCG	GCCGGGGGGG	CGCTCGGCTC	6120
CGCGGCTTCC	TCCCGGGCTG	GGGGGTCTCT	GTCTCCGGGG	CCTGCGGCTC	GCGGGCTCGG	6180
GGCTGCGTGC	GCCGCGCGCG	GCGTCCGCGG	TGGGTGGCGC	TGTCCCGCGG	TGGTGTGTCT	6240
CCGTTCTCTG	CCTGCGCCGT	CCTGGTCTGC	CCGTGGGGTC	CTGGGCGTGG	TGGGGGGCGT	6300
CTGGTGCCCT	GTCTGCCCCG	TGGGGCTTCC	GGCTCGGGGG	TGTTCTGCTC	CCCTGCGGCT	6360
CTGTGGCCTC	CGGGGCTCCT	CGTTTTCTCT	GCTTGGGGTG	TCCTTCTCGG	CGTGTGGCCC	6420
CGGGTCCCGG	CCCTGCTGGG	CTGGGCGGGG	TGCTGCCCCT	GGGCTTCTGG	CCCGTCTGGT	6480

EPI-109

571

TGTCTGTGG	TGCTTGTCTC	GGGTTTCTGG	CCTCTGTGCT	GGGCGCTTCT	CTGCCTCCTG	6540
CTCCGCCCTC	CTGGTGGCTC	GGCTGGGGGT	GCCCGTGCGG	GGGTGGGTGT	GGGGTGTTTT	6600
CGGGGTCTCT	CCCTTCCCGT	TTCATCTTGG	CTTATCCTC	TCCCCTTGTT	CCTCCCCTCT	6660
CCTGCTCTGG	RGTCTCCTCT	TCCCTCCCTC	CCCTGCCGTG	TTGTCTGTGG	GTGTCGTTTC	6720
GCTCTTGTGG	CCCTGGGCCC	TTCCCTGCTG	GGGGGGAGTT	TCATCTTGGG	TTTCBTCTTG	6780
GCTTTBTCCT	CTCCCCTTGT	TCCTCCCTC	TCCTGCTCTG	GRGTCTCCTC	TTCCCTCCCT	6840
CCCCTGCCGT	GTTGTCTGTG	GGTGTGTTT	CGCTCTTGT	GCCCTGGGCC	CTTCCCTGCT	6900
GGGGGGGBGT	TTCBTCTTGG	GGGGGBGTTT	CBTCTTGGCT	TTCCGTGTTG	TCBGTGGTGC	6960
TGCCCGTTTG	BGGTBTGGCG	CTCCBCCBBT	TCCCTTTTCT	CCTTGTTC	CGTTTCTCTT	7020
GCCGTCTGTG	GTT					7033

(2) INFORMATION FOR SEQ ID NO:2412:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 21 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2412:

GATGGAGGGC GGCATGGCGG G

21

(2) INFORMATION FOR SEQ ID NO:2413:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2413:

GCGGGTCGCC GG

12

(2) INFORMATION FOR SEQ ID NO:2414:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2414:

GGCGGGCBCB GGC

13

(2) INFORMATION FOR SEQ ID NO:2415:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2415:

GGCGGGCBC

9

(2) INFORMATION FOR SEQ ID NO:2416:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2416:

GCGGCCTGG

9

(2) INFORMATION FOR SEQ ID NO:2417:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2417:

GGBGGGCGGC

10

(2) INFORMATION FOR SEQ ID NO:2418:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2418:

GBTGGGGG

9

(2) INFORMATION FOR SEQ ID NO:2419:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2419:

GGCTGGGC

8

(2) INFORMATION FOR SEQ ID NO:2420:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 961 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2420:

```
1 ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC
61 CTGGTCTCTG TGCCCGGGA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG
121 CGGGATGCCA CCTTCTGCTT CATCGTCTCG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC
181 CTGGTCATCC CCCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC
241 CTCATGTTG CCTGTCCGGT CCTCATCTC ACCCAGAGCT CCATCCTGGC CCTGCTGGCA
301 ATTGCTGTGG ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC
361 CCCCGGAGGG CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG
421 ACCCTATGT TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC
481 AGCATGGGG AGCCCGTGAT CAAGTGCGAG TTCGAGAAGG TCATCAGCAT GGAGTACATG
541 GTCTACTTCA ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC TCCTCATGGT CCTCATCTAC
601 CTGGAGGTCT TCTACCTAAT CCGCAAGCAG CTCAACAAGA AGGTGTCGGC CTCCTCCGGC
661 GACCCGAGA AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCTC
721 TTCCTCTTG CCCTCAGCTG GCTGCCTTTG CACATCTCA ACTGCATCAC CCTCTTCTG
781 CCGTCTGCC ACAAGCCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC
841 TCGGCATGA ACCCATTTGT CTATGCCTTC CGCATCCAGA AGTTCCGCGT CACCTTCCTT
901 AAGATTGGA ATGACCATTT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA
961 GAAGAGAGGC CTGATGACTA G
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(2) INFORMATION FOR SEQ ID NO:2421:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2881 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2421:

```
1 ATGAGTGTC GAAGTGTA GGGTGCCTGT TCTGAATCCC AGAGCCTCCT CTCCCTCTGT
61 GAGGCTGGCA GGTGAGGAAG GGTTTAACCT CACTGGAAGG AATCCCTGGA GCTAGCGGCT
121 GCTGAAGGCG TCGAGGTGTG GGGGCACTTG GACAGAACAG TCAGGCAGCC GGGAGCTCTG
181 CCAGCTTTGG TGACCTTGGG CCGGGCTGGG AGCGCTGCGG CGGGAGCCGG AGGACTATGA
241 GCTGCCGCGC GTTGTCCAGA GCCCAGCCCA GCCCTACGCG CGCGGCCCGG AGCTCTGTTC
301 CCTGGAACCT TGGGCACTGC CTCTGGGACC CCGCCCGGCC AGCAGGCGAG ATGGTGCTTG
361 CCTCGTGCCC CTGGTGCCC GTCTGCTGAT GTGCCAGGCC TGTGCCCGCC ATGCCGCCCT
421 CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC CTGGTCTCTG
481 TGCCCGGGA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG CGGGATGCCA
541 CTTCTGCTT CATCGTGTG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC CTGTCATCC
601 CCCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC CTCATGGTTG
661 CCTGTCCGGT CCTCATCTC ACCCAGAGCT CCATCCTGGC CTGCTGGCA ATTGCTGTGG
721 ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC CCCGGAGGG
781 CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG ACCCCTATGT
841 TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC AGCATGGGGG
901 AGCCCGTGAT CAAGTGCGAG TTCGAGAAGG TCATCAGCAT GGAGTACATG GTCTACTTCA
961 ACTTCTTTGT GTGGGTGCTG CCCCCGCTTC TCCTCATGGT CCTCATCTAC CTGGAGGTCT
1021 TCTACCTAAT CCGCAAGCAG CTCAACAAGA AGGTGTGGC CTCCTCCGGC GACCCGAGA
1081 AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCTC TACTCTTTG
1141 CCCTCAGCTG GCTGCCTTTG CACATCTCA ACTGCATCAC CCTCTTCTG CCGTCTTGCC
1201 ACAAGCCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC TCGGCCATGA
1261 ACCCATTTGT CTATGCCTTC CGCATCCAGA AGTTCCGCGT CACCTTCCTT AAGATTGGA
1321 ATGACCATTT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA GAAGAGAGGC
1381 CTGATGACTA GACCCCGCCT TCCGCTCCCA CCAGCCACA TCCAGTGGGG TCTCAGTCCA
1441 TCTCTCACAT GCCCGCTGTC CCAGGGGTCT CCCTGAGCCT GCGGAGCTG GGCTGTGGC
1501 TTGGGGCATG GGGGAGGCTC TGAAGAGATA CCCACAGAT GTGGTCCCTC CACTAGGAT
1561 TAACTACCCT ACACCTCTGG GCCCTGCAGG AGGCCTGGGA GGGCAAGGGT CCTACGGAGG
1621 GACCAGGTGT CTAGAGGCAA CAGTGTCTG AGCCCCACC TGCCTGACCA TCCCATGAGC
1681 AGTCCAGCGC TTCAGGGCTG GGCAGTCTT GGGGAGGCTG AGACTGCAGA GGAGCCACCT
1741 GGGCTGGGAG AAGGTGCTTG GGCTTCTGCG GTGAGGCAGG GGAGTCTGCT TGTCTTAGAT
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EPI-109

573

1801 GTTGGTGGTG CAGCCCCAGG ACCAAGCTTA AGGAGAGGAG AGCATCTGCT CTGAGACGGA
 1861 TGAAGGAGA GAGGTTGAGG ATGCACTGGC CTGTTCTGTA GGAGAGACTG GCCAGAGGCA
 1921 GCTAAGGGGC AGGAATCAAG GAGCCTCCGT TCCCACCTCT GAGGACTCTG GACCCCAGGC
 1981 CATAACAGGT GCTAGGGTGC CTGCTCTCCT TGCCCTGGGC CAGCCCAGGA TTGTACGTGG
 2041 GAGAGGCAGA AAGGGTAGGT TCAGTAATCA TTTCTGATGA TTTGCTGGAG TGCTGGCTCC
 2101 ACGCCCTGGG GAGTGAGCTT GGTGCGGTAG GTGCTGGCCT CAAACAGCCA CGAGGTGTA
 2161 GCTCTGAGCC CTCCTTCTTG CCCTGAGCTT TCCGGGGAGG AGCCTGGAGT GTAATTACCT
 2221 GTCATCTGGG CCACCAGCTC CACTGGCCCC CGTTGCCGGG CCTGGACTGT CCTAGGTGAC
 2281 CCCATCTCTG CTGCTTCTGG GCCTGATGGA GAGGAGAACA CTAGACATGC CAACTCGGGA
 2341 GCATTCTGCC TGCCTGGGAA CGGGGTGGAC GAGGGAGTGT CTGTAAGGAC TCAGTGTGA
 2401 CTGTAGGCGC CCCTGGGGTG GGTTTAGCAG GCTGCAGCAG GCAGAGGAGG AGTACCCCC
 2461 TGAGAGCATG TGGGGGAAGG CCTTGCTGTC ATGTGAATCC CTCAATACCC CTAGTATCTG
 2521 GCTGGGTTTT CAGGGGCTTT GGAAGCTCTG TTGCAAGTGT CCGGGGGTCT AGGACTTTAG
 2581 GGATCTGGGA TCTGGGGAAG GACCAACCCA TGCCCTGCCA AGCCTGGAGC CCCTGTGTTG
 2641 GGGGGCAAGG TGGGGGAGCC TGGAGCCCTT GTGTGGGAGG GCGAGGCGGG GGAGCCTGGA
 2701 GCCCCTGTGT GGGAGGGCGA GCGGGGGAT CCTGGAGCCC CTGTGTCGGG GGGCGAGGGA
 2761 GGGGAGGTGG CCGTCGGTGT ACCTTCTGAA CATGAGTGC AACTCCAGGA CTGTCTCCA
 2821 AGCCCTTCCC TCTGTTGGAA ATTGGGTGTG CCCTGGCTCC CAAGGGAGGC CCATGTGACT
 2881 AATAAAAAAC TGTGAACCTT

(2) INFORMATION FOR SEQ ID NO:2422:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1921 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2422:

1 CGCATTTGTG TTTAATAAAA AGAATCTGGA AGATAAATAG TCTTGAAGAG AGACAAAGGA
 61 AGGAAAATTT AAATCCTTAG ATTCAAGCAG AAGAATCCA TGTGGAAGGT TTGGGTTGTT
 121 GTTGTGTTTG TTTGGTGTGT TTTTGTGTTT TTTGTTTTTT TGTTTTTTTT TGAGATGGAG
 181 TCTCGCTGTG TTACCGGGAG CGACAGAGCC GCACGGCCGA GTCGAGTCCC AGCCAGCTAC
 241 CATCCCTCTG GAGCTTACCG GCCGGCCTTG GCTTCCCAG GAATCCCTGG AGCTAGCGGC
 301 TGCTGAAGGC GTCGAGGTGT GGGGGCACTT GGACAGAAACA GTCAAGGCAGC CGGGAGCTCT
 361 GCCAGCTTTG GTGACCTTGG GTGCTTGCCCT CGTGCCCTT GGTGCCCGTC TGCTGATGTG
 421 CCCAGCCTGT GCCCGCCATG CCGCCCTCCA TCTCAGCTTT CCAGGCCCGC TACATCGGCA
 481 TCGAGGTGCT CATCGCCCTG GTCTCTGTGC CCGGGAACGT GCTGCTGATC TGGGCGGTGA
 541 AGGTGAACCA GCGGCTGCGG GATGCCACCT TCTGCTTCAT CGTGTGCTG GCGGTGGCTG
 601 ATGTGGCCGT GGGTGCCCTG GTCATCCCCC TCGCCATCCT CATCAACATT GGGCCACAGA
 661 CTTACTTCCA CACCTGCCTC ATGGTTGCCT GTCCGGTCCT CATCCTCACC CAGAGCTCCA
 721 TCTTGGCCCT GCTGGCAATT GCTGTGGACC GCTACCTCCG GGTCAAGATC CCTCTCCGGT
 781 ACAAGATGGT GGTGACCCCC CGGAGGGCGG CGGTGGCCAT AGCCGGCTGC TGGATCCTCT
 841 CCTTCGTGGT GGGACTGACC CCTATGTTTG GCTGGAACAA TCTGAGTGCG GTGGAGCGGG
 901 CTTGGGCAGC CAACGGCAGC ATGGGGGAGC CCGTGATCAA GTGCGAGTTC GAGAAGGTCA
 961 TCAGCATGGA GTACATGGTC TACTTCAACT TCTTTGTGTG GGTGCTGCCC CCGCTTCTCC
 1021 TCATGGTCCT CATCTACCTG GAGGTCTTCT ACCTAATCCG CAAGCAGCTC AACAAGAAGG
 1081 TGTGCGCCTC CTCGGCGAC CCGCAGAAGT ACTATGGGAA GGAGCTGAAG ATCGCCAAGT
 1141 CGCTGGCCCT CATCCTCTTC CTCTTTGCC TCAGCTGGCT GCCTTTGCAC ATCCTCAACT
 1201 GCATCACCCT CTTCTGCCCC TCCTGCCACA AGCCAGCAT CTTACCTAC ATTGCCATCT
 1261 TCCTCAGCA CGGCAACTCG GCCATGAACC CCATTGTCTA TGCTTCCAG ATCCAGAAGT
 1321 TCCGCGTCAC CTTCTTAAG ATTGGAATG ACCATTCCG CTGCCAGCCT GCACCTCCA
 1381 TTGACGAGGA TCTCCAGAA GAGAGGCCTG ATGACTAGAC CCCGCTTCC GCTCCACCG
 1441 CCCACATCCA GTGGGTCTC AGTCCAGTCC TCACATGCCC GCTGTCCCAG GGTCTCCCT
 1501 GAGCCTGCCC CAGCTGGGCT GTTGCTGGG GGCATGGGG AGGCTCTGAA GAGATACCA
 1561 CAGAGTGTGG TCCCTCCACT AGGAGTTAAC TACCCTACAC CTCTGGGCCC TGCAGGAGGC
 1621 CTGGGAGGGC AAGGGTCCTA CGGAGGGACC AGGTGTCTAG AGGCAACAGT GTTCTGAGCC
 1681 CCCACCTGCC TGACCATCCC ATGAGCAGTC CAGAGCTTCA GGGCTGGGCA GGTCTGGGG
 1741 AGGCTGAGAC TGACAGAGG CCACCTGGGC TGGGAGAAGG TGCTTGGGCT TCTGCGGTGA
 1801 GGCAGGGGAG TCTGCTTGTG TTAGATGTTG GTGGTGCAGC CCCAGGACCA AGCTTAAGGA
 1861 GAGGAGAGCA TCTGCTCTGA GACGATGGA AGGAGAGAGG TTGAGGATGC ACTGGCCTGT
 1921 TCTGTAGGAG AGACTGGCCA GA

(2) INFORMATION FOR SEQ ID NO:2423:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5904 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2423:

ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC CTGGTCTCTG
 TGCCCGGGA CGTGCTGGTG ATCTGGCGCG TGAAGTGAA CCAGGCGCTG CCGGATGCCA CCTTCTGCTT

EPI-109

574

CATCGTCTCG	CTGGCGGTGG	CTGATGTGGC	CGTGGGTGCC	CTGGTCATCC	CCCTCGCCAT	CCTCATCAAC
ATTGGGCCAC	AGACCTACTT	CCACACCTGC	CTCATGGTTG	CCTGTCCGGT	CCTCATCCTC	ACCCAGAGCT
CCATCCTGGC	CCTGCTGGCA	ATTGCTGTGG	ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC	GGTACAAGAT
GGTGGTGACC	CCCCGAGGG	CGGCGGTGGC	CATAGCCGGC	TGCTGGATCC	TCTCCTTCGT	GGTGGGACTG
TTGGCTGGAA	CAATCTGAGT	GCGGTGGAGC	GGGCCTGGGC	AGCCAACGGC	AGCATGGGGG	AGCCCGTGAT
CAAGTGCAG	TTCGAGAAGG	TCATCAGCAT	GGAGTACATG	GTCTACTTCA	ACTTCTTTGT	GTGGGTGCTG
CCCCCGCTTC	TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT	TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA
AGGTGTGGC	CTCCTCCGGC	GACCCGAGCA	AGTACTATGG	GAAGGAGCTG	AAGATCGCCA	AGTCGCTGGC
CCTCATCCTC	TTCCTCTTTG	CCCTCAGCTG	GCTGCCTTTG	CACATCCTCA	ACTGCATCAC	CCTCTTCTGC
CCGTCTGACC	ACAAGCCAG	CATCCTTACC	TACATTGCCA	TCTTCTCAC	GCACGGCAAC	TCGGCCATGA
ACCCCATTTG	CTATGCCTTC	CGCATCCAGA	AGTTCGCGT	CACCTTCTTT	AAGATTTGGA	ATGACCATT
CCGTGCCAG	CCTGCACCTC	CCATTGACGA	GGATCTCCCA	GAAGAGAGGC	CTGATGACTA	G
GAAGTGTGAA	GGGTGCTGT	TCTGAATCCC	AGAGCCTCCT	CTCCCTCTGT	GAGGCTGGCA	ATGATGTCA
GGTTTAACCT	CACCTGGAAGG	AATCCCTGGA	GCTAGCGGCT	GCTGAAGGCG	TCGAGGTGTG	GGGGCACTTG
GACAGAACAG	TCAGGCAGCC	GGGAGCTCTG	CCAGCTTTGG	TGACCTTGGG	CCGGGCTGGG	AGCGCTGCGG
CGGGAGCCGG	AGGACTATGA	GCTGCCGCGC	GTTGTCCAGA	GCCCAGCCCA	GCCCTACGCG	CGCGGCCCGG
AGCTCTGTTT	CCTGGAACCT	TGGGCACTGC	CTCTGGGACC	CCTGCCGGCC	AGCAGGCAGG	ATGGTGCTTG
CCTCGTGCCC	CTTGGTGCCC	GTCTGCTGAT	GTGCCAGCC	TGTGCCCGCC	ATGCGCCCTT	CCATCTCAGC
TTTCCAGGCC	GCCTACATCG	GCATCGAGGT	GCTCATCGCC	CTGGTCTCTG	TGCCCGGGA	CGTGCTGGTG
ATCTGGGCGG	TGAAGGTGAA	CCAGGCGCTG	CGGGATGCCA	CCTTCTGCTT	CATCGTGTG	CTGGCGGTGG
CTGATGTGGC	CGTGGGTGCC	CTGGTCATCC	CCCTCGCCAT	CCTCATCAAC	ATTGGGCCAC	AGACCTACTT
CCACACCTGC	CTCATGGTTG	CCTGTCCGGT	CCTCATCCTC	ACCCAGAGCT	CCATCCTGGC	CCTGCTGGCA
ATTGCTGTGG	ACCGCTACCT	CCGGGTCAAG	ATCCCTCTCC	GGTACAAGAT	GGTGGTGACC	CCCCGAGGGG
CGGCGGTGGC	CATAGCCGGC	TGCTGGATCC	TCTCCTTCGT	GGTGGGACTG	ACCCCTATGT	TTGGCTGGAA
CAATCTGAGT	GCGGTGGAGC	GGGCCTGGGC	AGCCAACGGC	AGCATGGGGG	AGCCCGTGAT	CAAGTGCAG
TTCGAGAAGG	TCATCAGCAT	GGAGTACATG	GTCTACTTCA	ACTTCTTTGT	GTGGGTGCTG	CCCCCGCTTC
TCCTCATGGT	CCTCATCTAC	CTGGAGGTCT	TCTACCTAAT	CCGCAAGCAG	CTCAACAAGA	AGGTGTGGC
CTCCTCCGGC	GACCCGAGCA	AGTACTATGG	GAAGGAGCTG	AAGATCGCCA	AGTCGCTGGC	CCTCATCCTC
TTCTCTTTTG	CCCTCAGCTG	GCTGCCTTTG	CACATCCTCA	ACTGCATCAC	CCTCTTCTGC	CCGTCTGACC
ACAAGCCAG	CATCCTTACC	TACATTGCCA	TCTTCTCAC	GCACGGCAAC	TCGGCCATGA	ACCCCATTTG
CTATGCCTTC	CGCATCCAGA	AGTTCGCGT	CACCTTCTTT	AAGATTTGGA	ATGACCATT	CCTGCTGCCAG
CCTGCACCTC	CCATTGACGA	GGATCTCCCA	GAAGAGAGGC	CTGATGACTA	GACCCCGCCT	TCGGCTCCCA
CCAGCCACA	TCCAGTGGGG	TCTCAGTCCA	GTCCTCACAT	GCCCCTGTG	CCAGGGGTCT	CCCTGAGCCT
GCCCCAGCTG	GGCTGTTGGC	TGGGGGCATG	GGGGAGGCTC	TGAAGAGATA	CCCACAGAGT	GTGGTCCCTC
CACTAGGAGT	TAACCTACCT	ACACCTCTGG	GCCCTGCAGG	AGGCCTGGGA	GGGCAAGGGT	CCTACGGAGG
GACCAGGTGT	CTAGAGGCAA	CAGTGTCTG	AGCCCCCACC	TGCCTGACCA	TCCCATGAGC	AGTCCAGCGC
TTCAGGGCTG	GGCAGGTCTT	GGGGAGGCTG	AGACTGCAGA	GGAGCCACCT	GGGCTGGGAG	AAGGTGCTTG
GGCTTCTGCG	GTGAGGCAGG	GGAGTCTGCT	TGTCTTAGAT	TTGGTGGTG	CAGCCCGAGG	ACCAAGCTTA
AGGAGAGGAG	AGCATCTGCT	CTGAGACGGA	TGGAAGGAGA	GAGGTGAGG	ATGCACTGGC	CTGTTCTGTA
GGAGAGACTG	GCCAGAGGCA	GCTAAGGGGC	AGGAATCAAG	GAGCCTCCGT	TCCCACCTCT	GAGGACTCTG
GACCCAGGC	CATACCAGGT	GCTAGGCTGC	CTGCTCTCCT	TGCCCTGGGC	CAGCCAGGA	TTGTACGTGG
GAGAGGCAGA	AAGGCTAGGT	TCAGTAATCA	TTTCTGATGA	TTTGCTGGAG	TGCTGGCTCC	ACGCCCTGGG
GAGTGAGCTT	GGTGCGGTAG	GTGCTGGCCT	CAAACAGCCA	CGAGGTGGTA	GCTCTGAGCC	CTCCTTCTTG
CCCTGAGCTT	TCCGGGAGG	AGCCTGGAGT	GTAATTACCT	GTCTATCTGG	CCACAGCTC	CAGTGGCCCC
CGTTGCCGGG	CCTGACTGT	CCTAGGTGAC	CCCATCTCTG	CTGCTTCTGG	GCCTGATGGA	GAGGAGAACA
CTAGACATGC	CAACTCGGGA	GCATTCTGCC	TGCCTGGGAA	CGGGGTGGAC	GAGGGAGTGT	CTGTAAGGAC
TCAGTGTGTA	CTGTAGGCGC	CCCTGGGGTG	GGTTTAGCAG	GCTGCAGCAG	GCAGAGGAGG	AGTACCCCCC
TGAGAGCATG	TGGGGGAAGG	CCTTGCTGTC	ATGTGAATCC	CTCAATACCC	CTAGTATCTG	GCTGGGTTTT
CAGGGGCTTT	GGAAGCTCTG	TTGCAGGTGT	CCGGGGGTCT	AGGACTTTAG	GGATCTGGGA	TCTGGGGAAG
GACCAACCCA	TGCCCTGCCA	AGCCTGGAGC	CCCTGTGTTG	GGGGGCAAGG	TGGGGGAGCC	TGGAGCCCCC
GTGTGGGAGG	GCGAGGCGGG	GGAGCCTGGA	GCCCCTGTGT	GGGAGGGCGA	GGCGGGGAT	CCTGGAGCCC
CTGTGTGCGG	GGGCGAGGGA	GGGGAGGTGG	CCGTGCGTTG	ACCTTCTGAA	CATGAGTGTG	AACTCCAGGA
CTTGCTTCCA	AGCCCTTCCC	TCTGTTGGAA	ATTGGGTGTG	CCCTGGCTCC	CAAGGGAGGC	CCATGTGACT
AATAAAAAAC	TGTGAACCTT	CGCATTTGTG	TTTTAATAAA	AGAATCTGGA	AGATAAATAG	TCTTGAAGAG
AGACAAAGGA	AGGAAAATTT	AAATCCTTAG	ATTCAAGCAG	AAGAATTTCA	TGTGGAAGGT	TTGGGTTGTT
GTTGTTGTTG	TTTGGTGTGT	TTTTTGTGTT	TTTGTGTTTT	TGTTTTTTTT	TGAGATGGAG	TCTCGCTGTG
TTACCGGGAG	GCACAGGCCG	GCACGGCCGA	GTCGAGTCCC	AGCCAGCTAC	CATCCCTCTG	GAGCTTACCG
GCCGGCCTTG	GCTTCCCCAG	GAATCCTTGG	AGCTAGCGGC	TGCTGAAGCG	GTCCAGGTGT	GGGGGCACCT
GGACAGAACA	GTCAGGCAGC	CGGGAGCTCT	GCCAGCTTTG	GTGACCTTGG	GTGCTTGCTT	CGTGCCCTTT
GGTGCCCGTC	TGCTGATGTG	CCCAGCCTGT	GCCCCCATG	CCGCCCTCCA	TCTCAGCTTT	CCAGGCCGCC
TACATCGGCA	TCGAGGTGCT	CATCGCCCTG	GTCTCTGTGC	CCGGGAACGT	GCTGGTGATC	TGGGCGGTGA
AGGTGAACCA	GGCGCTGCGG	GATGCCACCT	TCTGCTTCAT	CGTGTGCTG	GCGGTGGCTG	ATGTGGCCGT
GGGTGCCCTG	GTCTATCCCC	TCGCCATCCT	CATCAACATT	GGGCCACAGA	CCTACTTCCA	CACCTGCCTC
ATGGTGTGCT	GTCCGGTCCCT	CATCCTCACC	CAGAGCTCCA	TCCTGGCCCT	GCTGGCAATT	GCTGTGGACC
GCTACCTCCG	GGTCAAGATC	CCTCTCCGGT	ACAAGATGGT	GGTGACCCCG	CGGAGGGCCG	CGGTGGCCAT
AGCCGGCTGC	TGGATCCTCT	CCTTCGTGGT	GGGACTGACC	CCTATGTTTG	GCTGGAACAA	TCTGAGTGCG
GTGGAGCGGG	CCTGGGCAGC	CAACGGCAGC	ATGGGGGAGC	CCGTGATCAA	GTGCGAGTTC	GAGAAGGTCA
TCAGCATGGA	GTACATGGTC	TACTTCAACT	TCTTTGTGTG	GGTGTGCCC	CCGCTTCTCC	TCATGGTCTT

EPI-109

575

CATCTACCTG GAGGTCTTCT ACCTAATCCG CAAGCAGCTC AACAGAAGG TGTCGGCCTC CTCGGGCGAC
 CCGCAGAAGT ACTATGGGAA GGAGCTGAAG ATCGCCAAGT CGCTGGCCCT CATCTCTTTC CTCTTTGCCC
 TCAGCTGGCT GCCTTTGCAC ATCCTCAACT GCATCACCTT CTTCTGCCCG TCCTGCCACA AGCCAGCAT
 CCTTACCTAC ATTGCCATCT TCCTCAGCA CGGCAACTCG GCCATGAACC CCATTGTCTA TGCCTTCCGC
 ATCCAGAAGT TCCGCGTCAC CTTCCTTAAG ATTTGGAATG ACCATTTCG CTGCCAGCCT GCACCTCCCA
 TTGACGAGGA TCTCCAGAA GAGAGGCTG ATGACTAGAC CCCGCTTCC GCTCCACCG CCCACATCCA
 GTGGGGTCTC AGTCCAGTCC TCACATGCC GCTGTCCCAG GGGTCTCCCT GAGCCTGCC CAGCTGGGCT
 GTTGGCTGGG GGCATGGGGG AGGCTCTGAA GAGATACCA CAGAGTGTGG TCCCTCCACT AGGAGTTAAC
 TACCCTACAC CTCTGGGCCC TGCAGGAGGC CTGGGAGGGC AAGGGTCTTA CGGAGGGACC AGGTGTCTAG
 AGGCAACAGT GTTCTGAGCC CCCACCTGCC TGACCATCCC ATGAGCAGTC CAGAGCTTCA GGGCTGGGCA
 GGTCTGGGG AGGCTGAGAC TGCAGAGGAG CCACCTGGGC TGGGAGAAG TGCTTGGGCT TCTGCGGTGA
 GGCAGGGGAG TCTGCTTGTC TTAGATGTTG GTGGTGCAGC CCCAGGACCA AGCTTAAGGA GAGGAGAGCA
 TCTGCTCTGA GACGGATGGA AGGAGAGAGG TTGAGGATG ACTGGCCTGT TCTGTAGGAG AGACTGCCA GA GAT
 GGA GGG CGG CAT GGC GGG G CGG GTC GCC GG GGC GGG CBC BGG C GGC GGG CBC GC GGC CTG G
 GGB GGG CGG C GBT GGB GGG GG CTG GGC GC GGC CTG GAA AGC TGA GAT GGA GGG CGG CAT GGC
 GGG CAC AGG CTG GGC

5904

(2) INFORMATION FOR SEQ ID NO:2424:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1681 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2424:

1 CCCAGCCCCG AGGCTCAGAA GCGGCAGGCG GAGGCGCGGT CCGGGCGCTA TGGCCATGCC
 61 CGGCGGGTCT CACGCGGCTG CCCCTCGCCC GCGCGCCTT CGGTAGGGGG CGCCCGGGG
 121 CCAGCTGGCC CGGCCATGCT GCTGGAGACA CAGGACGCGC TGTACGTGGC GCTGGAGCTG
 181 GTCATCGCCG CGCTTTCGGT GCGGGGCAAC GTGCTGGTGT GCGCCGCGGT GGGCAGGGCG
 241 AACACTCTGC AGACGCCCCA CACTACTTC CTGGTGTCCC TGGCTGCGGC CGACGTGGCC
 301 GTGGGGCTCT TCGCCATCCC CTTTGCCATC ACCATCAGCC TGGGCTTCTG CACTGACTTC
 361 TACGGCTGCC TCTTCCTCGC CTGCTTCGTG CTGGTGTCTA CGCAGAGCTC CATCTTCAGC
 421 CTTCTGGCCG TGGCAGTCGA CAGATACCTG GCCATCTGTG TCCCGCTCAG GTATAAAAGT
 481 TTGGTCACGG GGACCCGAGC AAGAGGGGTC ATTGCTGTCC TCTGGGTCTT TGCCTTTGGC
 541 ATCGGATTGA CTCCATTCCT GGGGTGGAAC AGTAAAGACA GTGCCACCAA CAACTGCACA
 601 GAACCTGGG ATGGAACCAC GAATGAAAGC TGCTGCCTTG TGAAGTGTCT CTTTGAGAA
 661 TGGTGCCCA TGAGCTACAT GGTATATTTC AATTTCCTTG GGTGTGTCTT GCGCCCACTG
 721 CTTATAATGC TGGTGATCTA CATTAGATC TTCCTGGTGG CCTGCAGGCA GCTTCAGCGC
 781 ACTGAGCTGA TGGACCACTC GAGGACCACC CTCCAGCGGG AGATCCATGC AGCCAAGTCA
 841 CTGGCCATGA TTGTGGGGAT TTTTGCCCTG TGCTGGTTAC CTGTGCATGC TGTTAACTGT
 901 GTCACCTTT TCCAGCCAGC TCAGGGTAAA AATAAGCCCA AGTGGGCAAT GAATATGGCC
 961 ATTCTTCTGT CACATGCCAA TTCAGTTGTC AATCCCATG TCTATGCTTA CCGGAACCGA
 1021 GACTTCCGCT ACACCTTTCA CAAAATTATC TCCAGGTATC TTCTCTGCCA AGCAGATGTC
 1081 AAGAGTGGGA ATGGTCAGGC TGGGGTACAG CCGTCTCTCG GTGTGGGCT ATGATCTAGG
 1141 CTCTCGCCTC TTCCAGGAGA AGATACAAAT CCACAAGAA CAAAGAGGAC ACGGCTGGTT
 1201 TTCATTGTGA AAGATAGCTA CACCTCACAA GGAAATGGAC TGCCTCTCTT GAGCACTTCC
 1261 CTGGAGCTAC CACGTATCTA GCTAATATGT ATGTGTCACT AGTAGCACA AGGATTGACA
 1321 AATATATTTA TGATCTATTC AGCTGCTTTT ACTGTGTGGA TTATGCCAAC AGCTTGAATG
 1381 GATTCTAACA GACTCTTTT TTTTAAAGT TCTGCCTTGT TTATGGTGA AAATTACTGA
 1441 AACTATTTTA CTGTGAAACA GTGTGAACCTA TTATAATGCA AATACTTTT AACTTAGAGG
 1501 CAATGGAAAA ATAAAAGTTG ACTGTACTAA AAATGTATAC TTGTGGCCAG GAAGGTGACC
 1561 TCAAAAATTA AAAGTATAAT TATTCGGCCG GGCATGGTGG CTCACACCTG TAATTCCAGC
 1621 ACTTTGGGAG GCCAAGGCAG GCGGATCAG AGGTGAGGAG TTCAAAACCA GCCTGTCCAA
 1681 TATAGTG

(2) INFORMATION FOR SEQ ID NO:2425:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1681 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2425:

1 GGGCAATTG TTAGTTATCC GCCGCCACCA AGACGCGGCA CCGCGCCTGG ACCGGAGGGG
 61 CCCCGCGCGG GCGCGAATT TGGGCTCGGG CGAGTGGGTG GTGCTCCGCC CAGCCCGAGA
 121 CCGGCGGGCG CCGGGGCCAA TGGGTGCCGC CTCTTGGCCG CCGGGGGCCC CGACCCGTGG
 181 GTCCCGGCCA CCAGCGCCCC AGCCCCGAG CTGAGAAGCG GCAGGCGGAG GCGCGGTCCG
 241 GCGGCTATGG CCATGCCCCG GGGTCTCAC GCGGCTGCC CTGCGCCGCG CGCCTTCTCG
 301 TAGGGGGCGC CCGGGGCCCA GCTGGCCCGG CCATGCTGCT GGAGACACAG GACGCGCTGT
 361 ACGTGGCGCT GGAGCTGGTC ATCGCCGCGC TTTCCGTGGC GGGCAACGTG CTGGTGTGCG
 421 CCGCGGTGGG CACGCGAAC ACTCTGCAGA CGCCACCAA CTACTTCTG GTGTCCCTGG

481 CTGCGGCCGA CGTGGCCGTG GGGCTCTTCG CCATCCCCTT TGCCATCACC ATCAGCCTGG
541 GCTTCTGCAC TGACTTCTAC GGCTGCCTCT TCCTCGCCTG CTTCGTGCTG GTGCTCACGC
601 AGAGCTCCAT CTTACGCCTT CTGGCCGTGG CAGTCGACAG ATACCTGGCC ATCTGTGTCC
661 CGCTCAGGTA TAAAGTTTG GTACCGGGGA CCCGAGCAAG AGGGGTCATT GCTGTCCTCT
721 GGGTCCTTGC CTTTGGCATC GGATTGACTC CATTCTCTGG GTGGAACAGT AAAGACAGTG
781 CCACCAACAA CTGCACAGAA CCTCGGATG GAACCACGAA TGAAAGCTGC TGCCTTGTGA
841 AGTGTCTCTT TGAGAAATGTG GTCCCCATGA GCTACATGGT ATATTTCAAT TTCTTTGGGT
901 GTGTTCTGCC CCCACTGCTT ATAATGCTGG TGATCTACAT TAAGATCTTC CTGGTGGCCT
961 GCAGGCAGCT TCAGCGCACT GAGCTGATGG ACCACTCGAG GACCACCCTC CAGCGGGAGA
1021 TCCATGCAGC CAAGTCACTG GCCATGATTG TGGGGATTTT TGCCCTGTGC TGGTTACCTG
1081 TGCATGCTGT TAACTGTGTC ACTCTTTTCC AGCCAGCTCA GGGTAAAAAT AAGCCCAAGT
1141 GGGCAATGAA TATGGCCATT CTTCTGTAC ATGCCAATTC AGTTGTCAAT CCCATTGTCT
1201 ATGCTTACCG GAACCGAGAG TTCCGCTACA CTTTTCACAA AATTATCTCC AGGTATCTTC
1261 TCTGCCAAGC AGATGTCAAG AGTGGGAATG GTCAGGCTGG GGTACAGCCT GCTCTCGGTG
1321 TGGGCCTATG ATCTAGGCTC TCGCCTCTTC CAGGAGAAGA TACAAATCCA CAAGAAACAA
1381 AGAGGACACG GCTGTTTTT ATTGTGAAAG ATAGCTACAC CTCACAAGGA AATGGACTGC
1441 CTCTCTTGAG CACTTCCCTG GAGCTACCAC GTATCTAGCT AATATGTATG TGTCACTAGT
1501 AGGCTCCAAG GATTGACAAA TATATTTATG ATCTATTGAG CTGCTTTTAT TGTGTGGATT
1561 ATGCCAACAG CTTGAATGGA TTCTAACAGA CTCTTTTGT TTTAAAGATC TGCCTTGTTC
1621 ATGGTGGAAA ATTACTGAAA CTATTTTACT GTGAAACAGT GTGAACATT ATAAATGCAA
1681 TACTTTTTAA CTTAGAGGCA ATGGAATAAT AAAAGTTGAC TGTACTAAAA ATG

(2) INFORMATION FOR SEQ ID NO:2426:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2461 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2426:

1 GAATTCACAG ATGGGCAGAG GTGGCTGGGC TGGTGACCCT AAGTGTGTCT CCTGCCTTTA
61 TTCTCTCTAG TGGGTATTTC TTTTCATGTG TATCTTGCCCT ACAGCATGCT GTGTTTGGAC
121 ACAAAACCCCT TTTCTTGGTT TCTCTGACCC AGCTGAGATG GACTGATTCC AAAAGAATC
181 ACCTATGTAC TGGGGTAGGG GAGGGAGGGT TTTTTCAGT ATTTAACTAA GGTTCAAAGA
241 GTGCTATATA GTGAGAAAGG CTTCTTTTTT TTTTTTTTTT TTTTTTGGCA GAGTGTGCTC
301 TCCTGAATAT TTCTCTGGTT AACTTCCTTC TCTGAAGCAC AGATAAAGAA AACAAATACA
361 GTAGAAACAT TTATGAGGGA CACATTGGAG GCCGATGAAG CTTTTCAAGT TCCAGCAGTG
421 CAGGGATGTG GGCAGAACTG ACATTGGAAA ATACTAGAAT GATGGAAATT CAGTTGGAGA
481 GGAATGCCCT TTTAATGTC TGGGGAGTCT GCTCAGGGAG AAATGACAAG TCTGGCGGGG
541 ACAAGTATGG GATTTGGTAA GACTTGGATC AACTTGGGAT ACAGGGTGGG GGTGGGGAGT
601 GGAATCAATG AATGATGCCA GAGCAGATCA ACTAACAAGA GGACCTGTAT GAGCCCCAGG
661 CAGAGGCGTC TCCCTTATGC CCCACTCTGA AGTGTGTTGT AGTAAACACC AGAACGCCAT
721 TGTGTTTACT GCTGAATTTT ATTTTGGGCT GTACATATT AGATGCTTAA GGTAAAAATG
781 ATAAAGCCCT CAAGCCACTG TGTGGGTTTG GGTCCAAGTG TTCCTTCTTG CTGCCTCTCT
841 AACACGCCCT GTTAAATAAA TCCCTTTGGA TGGTGCTGAG AAGCACCTGA ACCAAGTGGG
901 TCCCCAAATA ACAATGGCGT GCAAGTGTCT GGTCCCAGA AGTTGGTGAC TAGGTAAGCA
961 GCTTCAGGGA GAGGGGGCTG ATTCCCAGAC AGTCGCCTGT TCCTGCGGGG ATGGGGCTGA
1021 GGCTTGGGGA ATGTGGGCAG GAGGATATGC CATTGATTTC TGTGACACAG GTTCTTTTCC
1081 CTTCTTTCTG TATGTCTGGT CATTCTGCTA TTCTGTCTGT CCTCACATAG GTTGGACATT
1141 GGCCGGCTGC CAGCATAAGT GCCAGTGTGA TTTTGCTAGG TGTGAGCTGA GAAAGAGAGG
1201 TGGAGGCTAA GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGGCCT TCTGAGCAGG
1261 GAATCTTTGC TTATCCCTTT GACCAAGGAT CTTTGCTGCA AAGGCTGGGT ATCGGCTGTG
1321 CTCAGCAAAG CGTCAACTCG TGCAAGAACT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA
1381 GGCTGCCACC AAAGTCTCTT TTTTGTTCCT CTGCTTCTCC CGTTTGCCCT CTTATCATGA
1441 GATCTTTTTC CTAAGCTGGC AGAAAGATTG CATAGTCAGT GCTTCCAGCT CTGCTCCAC
1501 CTGATCCTGC ACTGTCTCTT GGTCCCTGAA TGAATGAAT CTGATACCCA ATCTTGCTCTC
1561 GAGCCTTCTC TATGCCACTC ATGGCTCCTC TTCTGCTCTT TCCATCTTTT TGCTGAGAGT
1621 TCTGAGCTCT GACTTCTCTC TTGGCCCATC TCACTTCTCG AAACACCCCT GAAGAGGGTT
1681 GCTTATCTTG ATGGAACCTA AAAAGCCAAA AAGCTGCAGG CAGAGGCGTT GAGGACATCT
1741 GTTGGGGGAA CTAAGAGCAG CAGCACTTTC AGATTCACTC CATATAGAGC TGTCTTACAG
1801 CATTCTGGAA ACTTGAGGAT GTGCGGTGCA TAAAGGGGCT GGAAGTGACC CACCTGTGAT
1861 GAGCCCTTTC TAAGGAGAAG GGTTCACAG AGATCACCCC ACCAGAAAAG GGTAGGAATG
1921 AGCAAGTTGG GAATTTTAGA CTGTCACTGC ACATGGACCT CTGGGAAGAG GTCTGGCGAG
1981 AGCTAGGCCC ACTGGCCCTA CAGACGGATC TTGCTGGCTC ACCTGTCCCT GTGGAGGTTT
2041 CCCTGGGAAG GCAAGATGCC CAACAACAGC ACTGCTCTGT CATTGGCCAA TGTACCTAC
2101 ATCACCATGG AAATTTTCAT TGGACTCTGC GCCATAGTGG GCAACGTGCT GGTCACTGCT
2161 GTGGTCAAGC TGAACCCAGC CCTGCAGACC ACCACCTTCT ATTTCAATTG CTCTCTAGCC
2221 CTGGCTGACA TTGCTGTTGG GGTGCTGGTC ATGCCTTTGG CCATTGTTGT CAGCCTGGGC
2281 ATCACAATCC ACTTCTACAG CTGCCTTTTT ATGACTGGCC TACTGCTTAT CTTTACCCAC
2341 GCCTCCATCA TGTCTTGTCT GGCCATCGCT GTGGACCGAT ACTTGGGGT CAAGCTTACC

2401 GTCAGGTAGC CTGCGGCGTG GGGTGGGCAG CAATTGAGGC AGCTGGGAAA TGAGGCTACA
2461 AAGCCAGAGC

(2) INFORMATION FOR SEQ ID NO:2427:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1741 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2427:

1 CGAATTCGGG GGACATCTGT TTGGGGAAC T AAGAGCAGCA GCACTTTCAG ATTCAGTCCA
61 TATAGAGCTG TCCTACAGCA TTCTGGAAC TTGAGGATGT GCGGTGCATA AACGGGCTGG
121 AAGTGACCCA CCTGTGATGA GCCCTTTCTA AGGAGAAGGG TTCCAAGAG ATCACCCAC
181 CAGAAAAGGG TAGGAATGAG CAAGTTGGGA ATTTTAGACT GTCAGTGCAC ATGGACCTCT
241 GGGAAAGAGT CTGGCGAGAG CTAGGCCCCA TGGCCCTACA GACGGATCTT GCTGGCTCAC
301 CTGTCCCTGT GGAGGTCCCC CTGGGAAGGC AAGATGCCCC ACAACAGCAC TGCTCTGTCA
361 TTGGCCAATG TTACCTACAT CACCATGGAA ATTTTCATTG GACTCTGCGC CATAGTGGGC
421 AACGTGCTGT TCATCTGCGT GGTCAAGCTG AACCCAGCC TGCAGACCAC CACCTTCTAT
481 TTCATTGTCT CTCTAGCCCT GGCTGACATT GCTGTTGGGG TGCTGGTCAT GCCTTTGGCC
541 ATTGTTGTCA GCCTGGGCAT CACAATCCAC TTCTACAGCT GCCTTTTTAT GACTTGCTTA
601 CTGCTTATCT TTACCCACGC CTCCATCATG TCCTTGCTGG CCATCGCTGT GGACCGATAC
661 TTGCGGGTCA AGCTTACCGT CAGATACAAG AGGGTCACCA CTCACAGAAG AATATGGCTG
721 GCCTGGGGCC TTTGCTGGCT GGTGTCATT C TGGTGGGAT TGACCCCAT GTTTGGCTGG
781 AACATGAAAC TGACCTCAGA GTACCACAGA AATGTCACCT TCCTTTCATG CCAATTTGTT
841 TCCGTCATGA GGATGGACTA CATGGTATAC TTCAGCTTCC TCACCTGGAT TTTTCATCCC
901 CTGGTTGTCA TGTGCGCCAT CTATCTTGAC ATCTTTTACA TCATTGGAA CAAACTCAGT
961 CTGAACCTAT CTAACCTCAA AGAGACAGGT GCATTTTATG GACGGGAGTT CAAGACGGCT
1021 AAGTCCTTGT TTCTGGTTCT TTTCTTGTCT GCTCTGTCAT GGCTGCCTTT ATCTCTCATC
1081 AACTGCATCA TCTACTTTAA TGGTGAGGTA CCACAGCTTG TGCTGTACAT GGGCATCCTG
1141 CTGTCCCATG CCAACTCCAT GATGAACCCT ATCGTCTATG CCTATAAAAT AAAGAAGTTC
1201 AAGGAAACCT ACCTTTTGAT CCTCAAAGCC TGTGTGGTCT GCCATCCCTC TGATTTCTTG
1261 GACACAAGCA TTGAGAAGAA TTCTGAGTAG TTATCCATCA GAGATGACTC TGTCTATTG
1321 ACCTTCAGAT TCCCCATCAA CAAACACTTG AGGGCCTGTA TGCTGGGGC AAGGGATTTT
1381 TACATCCTTG ATTACTTCCA CTGAGGTGGG AGCATCTCCA GTGCTCCCCA ATTATATCTC
1441 CCCCCTCCA CTACTCTCTT CCTCCACTTC ATTTTTCCTT TGTCCTTTCT CTCTAATTCA
1501 GTGTTTTGGA GGCCTGACTT GGGGACAACG TATTATTGAT ATTATTGTCT GTTTTCCTTC
1561 TTCCCAATAG AAGAATAAGT CATGGAGCCT GAAGGGTGCC TAGTTGACTT ACTGACAAA
1621 GGCTCTAGTT GGGCTGAACA TGTGTGTGGT GGTGACTCAT TTCCATGCCA TTGTGGAATT
1681 GAGCAGAGAA CTGCTCTCG GAGGATGCCT AGGAGATGTT GGAACAGAA GAAATAAAT
1741 GAGTTTAAGG GGGACTTAAA CTGCTGAATT C

(2) INFORMATION FOR SEQ ID NO:2428:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2041 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2428:

1 GCCGCCGCCG CCAAGATGGC GGACCTGGAG GCGGTGCTGG CCGACGTGAG CTACCTGATG
61 GCCATGGAGA AGAGCAAGGC CACGCCGGCC GCGCGCGCCA GCAAGAAGAT ACTGCTGCCC
121 GAGCCCAGCA TCCGCAGTGT CATGCAGAAG TACCTGGAGG ACCGGGGCGA GGTGACCTTT
181 GAGAAGATCT TTTCCAGAA GCTGGGGTAC CTGCTCTTCC GAGACTTCTG CCTGAACCAC
241 CTGGAGGAGG CCAGGCCCTT GGTGGAATTC TATGAGGAGA TCAAGAAGTA CGAGAAGCTG
301 GAGACGGAGG AGGAGCGTGT GGCCCGCAGC CGGGAGATCT TCGACTCATA CATCATGAAG
361 GAGCTGCTGG CCTGCTCGCA TCCCTTCTCG AAGAGTGCCA CTGAGCATGT CCAAGGCCAC
421 CTGGGGAAGA AGCAGGTGCC TCCGGATCTC TTCCAGCCAT ACATCGAAGA GATTGTCAA
481 AACCTCCGAG GGGACGTGTT CCAGAAATTC ATTGAGAGCG ATAAGTTCAC ACGGTTTTGC
541 CAGTGGAAGA ATGTGGAGCT CAACATCCAC CTGACCATGA ATGACTTCAG CGTGATCGC
601 ATCATTGGGC GCGGGGGCTT TGGCGAGGTC TATGGGTGCC GGAAGGCTGA CACAGGCAAG
661 ATGTACGCCA TGAAGTGCCT GGACAAAAG CGCATCAAGA TGAAGCAGGG GGAGACCCTG
721 GCCCTGAACG AGCGCATCAT GCTCTCGCTC GTCAGCACTG GGGACTGCCC ATTCATTGTC
781 TGCATGTCAT ACGCGTTCCA CACGCCAGAC AAGCTCAGCT TCATCCTGGA CCTCATGAAC
841 GGTGGGGACC TGCATACCA CCTCTCCAG CACGGGGTCT TCTCAGAGGC TGACATGCGC
901 TTCTATGCGG CCGAGATCAT CCTGGGCCCTG GAGCACATGC ACAACCGCTT CGTGGTCTAC
961 CGGGACCTGA AGCCAGCCAA CATCCTTCTG GACGAGCATG GCCACGTGCG GATCTCGGAC
1021 CTGGGCCCTG CCTGTGACTT CTCCAAGAAG AAGCCCCATG CCAGCGTGGG CACCCACGGG
1081 TACATGGCTC CGGAGGTCCT GCAGAAGGGC GTGGCCTACG ACAGCAGTGC CGACTGGTTC
1141 TCTCTGGGGT GCATGCTCTT CAAGTTGCTG CCGGGGCACA GGGGCTCCG GCAGCACAAG
1201 ACCAAAGACA AGCATGAGAT CGACCGCATG ACGCTGACGA TGGCCGTGGA GCTGCCCGAC

EPI-109

578

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1261 TCCTTCTCCC CTGAACTACG CTCCCTGCTG GAGGGGTTGC TGCAGAGGGA TGTCAACCGG
1321 AGATTGGGCT GCCTGGGCCG AGGGGCTCAG GAGGTGAAAG AGAGCCCTT TTTCCGCTCC
1381 CTGGACTGGC AGATGGTCTT CTTGCAGAA GACCTTCCCC CGCTGATCCC CCCACGAGGG
1441 GAGGTGAACG CGGCCGACGC CTTGCACATT GGCTCCTTCG ATGAGGAGGA CACAAAAGGA
1501 ATCAAGTTAC TGGACAGTGA TCAGGAGCTC TACCGCAACT TCCCCCTCAC CATCTCGGAG
1561 CGGTGGCAGC AGGAGGTGGC AGAGACTGTC TTCGACACCA TCAACGCTGA GACAGACCGG
1621 CTGGAGGCTC GCAAGAAAGC CAAGAACAAG CAGCTGGGCC ATGAGGAAGA CTACGCCCTG
1681 GGCAAGGACT GCATCATGCA TGGCTACATG TCCAAGATGG GCAACCCCTT CCTGACCCAG
1741 TGGCAGCGGC GGTACTTCTA CCTGTTCCCC AACCGCTCG AGTGGCGGGG CGAGGGCGAG
1801 GCCCCGAGA GCCTGCTGAC CATGGAGGAG ATCCAGTCGG TGGAGGAGAC GCAGATCAAG
1861 GAGCGCAAGT GCCTGCTCCT CAAGATCCGC GGTGGGAAAC AGTTCATTT GCAGTGCAT
1921 AGCGACCTG AGCTGGTGCA GTGGAAGAAG GAGCTGCGCG ACGCCTACCG CGAGGCCAG
1981 CAGCTGGTGC AGCGGGTGCC CAAGATGAAG AACAAGCCGC GCTCGCCCGT GGTGGAGCTG
2041 AGCAAGGTGC CGCTGGTCCA GCGCGGAGT GCCAACGGCC TCTGACCCGC CCACCCGCT

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(2) INFORMATION FOR SEQ ID NO:2429:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2341 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2429:

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1 CCAGGAAGCT ACCTGGAGGA GGTGAGTCTT AGCGGATGAG TAGGAGTTGT CCACGGAGGA
61 AGGTACACAG AAGGGCTTCC AGGCCAGGA AACAGCAGAG GCACAGAAGT GAGAATGGGT
121 GGGTGAGTTG GTGGGAAAC TCCAGGTGCA GAGGATGGTA GCGAAACAAA CTGGAGCATT
181 AAGGTCCAAG TCCTCCAAGA TCTTGACTTG CAGATTAAGG AGTTTGTTC CTAATCTGC
241 TTTGGGCAGA GTGTGGTGAG TCCTAGAGAC CCTCTAGGT CTCTCCTCTC AGTAGCCCCA
301 GAAGGCCTGG AGAGCTGCTT CTGGGTGCCA AGCAGGCAGT GACTCCATCA GATCTAGATT
361 TGGGAAAAGC ATCCCTGGTC AGGGCTGCA TCAGGGCAGT GGCTGGCCAT GAGGACCTG
421 AGAAGTAGAC AGATTCACGG AGATTCTCAG GAGGCCAGAC AGGAGACTAT GTTGACAAAT
481 TAGATTAGAG AAGGGGAGAG AATGAAGGAG CAGTTGGGGT AAAAGAAAAC CCTCTGTGCG
541 ATGGGTATAT GGGTGGCGAG TGAATCACA CCCACTGAGA GGAGAACCTC ACAAGCTCTG
601 ACATGCTCTG GTTCCAGGTT CTGTTGGGGC TGATCCAAGA TGGTAGCCTA GAGGTGCACA
661 GAGATGGGGG CCTTGCTTTG CAAAAGGATG CTGGCTGCTG GCCCACAGCA TGGAATAGAG
721 ATTTGAGCTT TATGTGCCCA GGGCTGGGAG GAGGGTCTCT TCACTTTGAA AGCAAAGAGA
781 GGCTCTAGAG AGGGGCATGT TGAGATAGGA ATGCTGCCTT GAGACACCTG GCTTTCCCCA
841 CTCTGGGTGG CTCTCAGCAG GGTGGGTTTC CCCTGCCAGG CAGCACTGAA CCTCTGTGCG
901 CTTCCGGCTG GGAGAGTTT TACCGTAACT ACATGTGGAA CCATCCTGAA GGAACATCTG
961 GATGGGATGG GGTACAGGGA AGGGAGCTGC CAAGAGTGCT GGGCAGGGAC CTGGGTCTAT
1021 GAGCTGGTTG GGGGGTGGGG TTGGGTGCAG GGTACTTGAT CCTGAGTGGG CTTCTGCGG
1081 CCAGGATTGG TTCTAGAGTA GGAGGGTGG GATCGGGAT GGGGGAAGCC TGTAACTGCG
1141 CTGCAAGTTG CAGGTCCCAG GTTCTGGGTG ACCTACTAAG GATTCTGGGT CCAGTGTGGG
1201 TCCCAGGTTA GACGTCCTAG TCCTGAGTCC GTGTCCACAG TTCTGGGTGT TGAGTCTAGG
1261 ACAGTGATCT GGAGTTGACA GTCCAATCTA GGTCTGAGTC CTGACCCCAA GTCTAGAGTT
1321 CAGGGTCATG GTAGTAGCCT AGGGTCAGAA TCAAGGTTGG GGTCAAGTAA CAGGATGGGA
1381 TCGAGGTCAT GGTCCAAAAT CTGGATCTGG GGACCTGTG GGGGTCTGAG GTGAGTGTG
1441 CAGTCTGGGT ATGGCGTTGG AGACCCAGGG CTGTGATCTG AGGTCATGGT TAGAGTCTCA
1501 GGTGGTGGGC CAAGGTTTGA GTCTGGGGTC CTGTTGGAG TCTGGTGTCA GGTCTGGGAT
1561 TGCTGCTCAAG GTCAGGAGT CCGGGGTAT AGCCAGGGT TGAGATGAAA GTCCCAGATG
1621 GTGTTCAAGG GTCTGAATCT GTGTCTTGGT GAGCGTCCAG GTTCCCTGTG ATCAGCTTTG
1681 GTGTCAGGGC TGCGGCCCGA CTGGGGAGCC TGGGATCCAG AGATGTGACC CGAGGTTGTG
1741 GTCAGAGAAT GGGTCTCGGG TCGTCTCTGT GCGGGGTCCC TGTCGTGTTT CAGGCCCGGG
1801 TCTCCGTCCA GCATCGAGGG CCGAGGTCAC GGCCAGGGTC TGAGCCCGCG GTCGCGAGTC
1861 TGGTTCGGGG TCAGATTCCG CGCGGCCTCC AGGGGGCGCC GTCGCGCCG GGTCTCGGCC
1921 CTCGCGGGCT CGCTGGCGTT GTGCGCGGCA GCGGGGGCCG GAGGCGGCG CGGCTCCGGG
1981 GCGCGGGGCC GCGCGGCGGC GCGCGGCGGC CCCCAGTGC AGTCCGCGG GGAGCGGAGC
2041 GCGAAGCGCG GGGCCGGGCC CGGAGCCGGC GCCATGGGGC GCGCGCGCCT GTGAGCGGCG
2101 GCGAGCGGAG CCGCGGGCGC CGAGCAGGGC CAGGCGGGAG CGTCGGCGCC CGAGGCCGAG
2161 CGAGCCGCGG CCGGGCCGGG CCGAGCGCCG AGCGAGCAGG AGCGGCGGCG GCGGCGGCGG
2221 CGGCGGGAGG AGGCAGCGCC GCCGCCAAGA TGGCGGACCT GGAGGCGGTG CTGGCCGACG
2281 TGAGCTACCT GATGGCCATG GAGAAGAGCA AGGCCACGCC GGCCGCGCGC GCCAGCAAGA
2341 AGATACTGCT GCCCGAGCCC AGGTGAGGAG AAGCT

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(2) INFORMATION FOR SEQ ID NO:2430:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4382 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

EPI-109

579

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2430:

GCCGCCGCCG	CCAAGATGGC	GGACCTGGAG	GCGGTGCTGG	CCGACGTGAG	CTACCTGATG	GCCATGGAGA
AGAGCAAGGC	CACGCCGGCC	GCGCGCGCCA	GCAAGAAGAT	ACTGCTGCCC	GAGCCCAGCA	TCCGCAGTGT
CATGCAGAAG	TACCTGGAGG	ACCGGGGCGA	GGTGACCTTT	GAGAAGATCT	TTTCCAGAA	GCTGGGGTAC
CTGCTCTTCC	GAGACTTCTG	CCTGAACCAC	CTGGAGGAGG	CCAGGCCCTT	GGTGGAAATC	TATGAGGAGA
TCAAGAAGTA	CGAGAAGCTG	GAGACGGAGG	AGGAGCGTGT	GGCCCCGAGC	CGGGAGATCT	TCGACTCATA
CATCATGAAG	GAGCTGCTGG	CCTGCTCGCA	TCCCTTCTCG	AAGAGTGCCA	CTGAGCATGT	CCAAGGCCAC
CTGGGGAAGA	AGCAGGTGCC	TCCGGATCTC	TTCCAGCCAT	ACATCGAAGA	GATTTGTCAA	AACCTCCGAG
GGGACGTGTT	CCAGAAATTC	ATTGAGAGCG	ATAAGTTCAC	ACGGTTTTGC	CAGTGGAAGA	ATGTGGAGCT
CAACATCCAC	CTGACCATGA	ATGACTTCAG	CGTGCAATCG	ATCATTGGGC	GCGGGGGCTT	TGGCGAGGTC
TATGGGTGCC	GGAAAGCTGA	CACAGGCAAG	ATGTACGCCA	TGAAGTGCTT	GGACAAAAG	CGCATCAAGA
TGAAGCAGGG	GGAGACCCTG	GCCCTGAACG	AGCGCATCAT	GCTCTCGCTC	GTCAGCACTG	GGGACTGCCC
ATTCATTGTC	TGCATGTCAT	ACGCGTTCCA	CACGCCAGAC	AAGCTCAGCT	TCATCTGGA	CCTCATGAAC
GGTGGGGACC	TGCACTACCA	CCTCTCCCAG	CACGGGGTCT	TCTCAGAGGC	TGACATGCGC	TTCTATGCGG
CCGAGATCAT	CCTGGGCCTG	GAGCACATGC	ACAACCGCTT	CGTGGTCTAC	CGGGACCTGA	AGCCAGCCAA
CATCCTTCTG	GACGAGCATG	GCCACGTGCG	GATCTCGGAC	CTGGGCCTGG	CCTGTGACTT	CTCCAAGAAG
AAGCCCCATG	CCAGCGTGGG	CACCCACGGG	TACATGGCTC	CGGAGGTCTT	GCAGAAGGGC	GTGGCCTACG
ACAGCAGTGC	CGACTGGTTC	TCTCTGGGGT	GCATGCTCTT	CAAGTTGCTG	CGGGGGCACA	GCCCCCTCCG
GCAGCACAAG	ACCAAAGACA	AGCATGAGAT	CGACCGCATG	ACGCTGACGA	TGGCCGTGGA	GCTGCCCGAC
TCCTTCTCCC	CTGAAGTACG	CTCCCTGCTG	GAGGGGTTGC	TGCAGAGGGA	TGTCAACCGG	AGATTGGGCT
GCCTGGGGCCG	AGGGGCTCAG	GAGGTGAAAG	AGAGCCCTT	TTTCCGCTCC	CTGGACTGGC	AGATGGTCTT
CTTGCAAGAG	TACCTCCCC	CGCTGATCCC	CCCACGAGGG	GAGGTGAACG	CGGCCGACGC	CTTCGACATT
GGCTCCTTCG	ATGAGGAGGA	CACAAAAGGA	ATCAAGTTAC	TGGACAGTGA	TCAGGAGCTC	TACCGCAACT
TCCCCCTCAC	CATCTCGGAG	CGGTGGCAGC	AGGAGGTGGC	AGAGACTGTC	TTCGACACCA	TCAACGCTGA
GACAGACCGG	CTGGAGGCTC	GCAAGAAAGC	CAAGAACAAG	CAGCTGGGCC	ATGAGGAAGA	CTACGCCCTG
GGCAAGGACT	GCATCATGCA	TGGCTACATG	TCCAAGATGG	GCAACCCCTT	CCTGACCCAG	TGGCAGCGGC
GGTACTTCTA	CCTGTTCCCC	AACCGCCTCG	AGTGGCGGGG	CGAGGGCGAG	GCCCCGAGG	GCCTGCTGAC
CATGGAGGAG	ATCCAGTCCG	TGGAGGAGAC	GCAGATCAAG	GAGCGCAAGT	GCCTGCTCCT	CAAGATCCGC
GGTGGGAAAC	AGTTTCAATTT	GCAGTGCAT	AGCGACCTG	AGCTGGTGCA	GTGGAAGAAG	GAGCTGCGCG
ACGCCTACCG	CGAGGCCAG	CAGCTGGTGC	AGCGGGTGCC	CAAGATGAAG	AACAAGCCGC	GCTCGCCCGT
GGTGAGAGTG	AGCAAGGTGC	CGCTGGTCCA	GCGCGGCAGT	GCCAACGGCC	TCTGACCCGC	CCACCCGCCT
CCAGGAAGCT	ACCTGGAGGA	GGTGAGTCTT	AGCGGATGAG	TAGGAGTTGT	CCACGGAGGA	AGGTACACAG
AAGGGCTTCC	AGGCCCAGGA	AACAGCAGAG	GCACAGAAGT	GAGAATGGGT	GGGTGAGTTG	GTGGGGAAC
TCCAGGTGCA	GAGGATGGTA	GCGAAACAAA	CTGGAGCATT	AAGGTCGAAG	TCCTCCAAGA	TCTTGACTTG
CAGATTAAGG	AGTTTGTTC	CCTAATCTGC	TTTGGGCAGA	GTGTGGTGAG	TCCTAGAGAC	CCCTCTAGGT
CTCTCCTCTC	AGTAGCCCCA	GAAGGCCTGG	AGAGCTGCTT	CTGGGTGCCA	AGCAGGCAGT	GACTCCATCA
GATCTAGATT	TGGGAAAAGC	ATCCCTGGTC	AGGGCCTGCA	TCAGGGCAGT	GGCTGGCCAT	GAGGACCTTG
AGAAGTAGAC	AGATTACCGG	AGATTCTCAG	GAGGCCAGAC	AGGAGACTAT	GGTGACAAAT	TAGATTAGAG
AAGGGGAGAG	AATGAAGGAG	CAGTTGGGGT	AAAAGAAAAC	TGAGGCTGAC	ATGGGTATAT	GGGTGGCGAG
TGACTCACCA	CCCACTGAGA	GGAGAACCTC	ACAAGCTCTG	ACATGCTCTG	GTTCCAGGTT	CTGTTGGGGC
TGATCCAAGA	TGGTAGCCTA	GAGGTGCACA	GAGATGGGGG	CCTTGCTTTG	CAAAAGGATG	CTGGCTGCTG
GCCCCACAGCA	TGGTAATGAG	ATTTGAGCTT	TATGTGCCCA	GGGCTGGGAG	GAGGGTCTTG	TCACTTTGAA
AGCAAAGAGA	GGCTCTAGAG	AGGGGCATGT	TGAGATAGGA	ATGCTGCCTT	GAGACACCTG	GCTTTCCCCA
CTCTGGGTGG	CTCTCAGCAG	GGTGGGTTTC	CCCTGCCAGG	CAGCACTGAA	CCTCTGTGCG	CTTCCGGCTG
GGAGAGTTTT	TACCGTAACT	ACATGTGGAA	CCATCCTGAA	GGAACATCTG	GATGGGATGG	GGTACAGGGA
AGGGAGCTGC	CAAGAGTGCT	GGCCAGGGAC	CTGGGTCTAT	GAGCTGGTTG	GGGGTGGGG	TGGGTGCAG
GGTACTTGAT	CCTGAGTGGG	CCTTCTGCGG	CCAGGATTGG	TTCTAGAGTA	GGAGGGGTGG	GATCGGGGAT
GGGGGAAGCC	TGTAAGTGC	CTGCAGTTGT	CAGGTCCCAG	GTTCTGGGTG	ACCTACTAAG	GATTCTGGGT
CCAGTGTTGG	TCCCAGGTTA	GACGTCCTAG	TCCTGAGTCC	GTGTCCACAG	TTCTGGGTGT	TGAGTCTAGG
ACAGTGATCT	GGAGTTGACA	GTCCAATCTA	GGTCTGAGTC	CTGACCCCAA	GTCTAGAGTT	CAGGGTCATG
GTAGTAGCCT	AGGGTCAGAA	TCAAGGTTGG	GGTCAGTAAC	CAGGATGGGA	TCGAGGTCAT	GGTCCAAAAT
CTGGATCTGG	GGACCTGTTG	GGGGTCTGAG	GTGAGTGTG	CAGTCTGGGT	ATGGCGTTGG	AGACCCAGGG
CTGTGATCTG	AGGTATGGT	TAGAGTCTCA	GGTGTGGGC	CAAGGTTTGA	GTCTGGGGTC	CTGTTTGGAG
TCTGGTGTCA	GGTCGTGGAC	TGCGTCCAAG	GTCAGGGAGT	CCGGGGTTAT	AGCCAGGGTC	TGAGATGAAA
GTCCAGATG	GTGTTCAAG	GTCTGAATCT	GTGTCTTGGT	GAGCGTCCAG	GTTCCCTGTG	ATCACGTTTG
GTGTCAGGGC	TGCGGCCCCA	CTGGGGAGCC	TGGGATCCAG	AGATGTGACC	CGAGGTTGTG	GTCAGAGAAT
GGGTCTCGGG	TCGTCTTCGT	GCCGGGTCCC	TGTCGTGTTT	CAGGGCCGGG	TCTCCGTCCA	GCATCGAGGG
CCGAGGTCAC	GGCCAGGGTC	TGAGCCCGCG	GTCGCAAGTC	TGGTTCGGGG	TCAGATTCCG	CGCGCCCTCC
AGGGGGCGCC	GTCGCCGGCC	GGCTCGGCCC	CTCGCGGGCT	CGCTGGCGTT	GTGCGCGGCA	GGCGGGGGCC
GAGCGCGCGG	CGGCTCCGGG	GGCGCGGGCC	GGCGCGGGCC	GCGCGCGGCG	CCCCACTGCG	AGTCCCGCGG
GGAGCGGAGC	GCGAAGCGCG	GGGCGGGGCC	CGGAGCGGGC	GCCATGGGGC	GGCGCGCCTT	GTGAGCGCGG
GCGAGCGGAG	CCGCGGGCGC	CGAGCAGGGC	CAGGCGGGAG	CGTCGGCGCC	CGAGGCCGAG	CGAGCCCGCG
CCGGGCGGGG	CCGAGCGCCG	AGCGAGCAGG	AGCGGCGGCG	GCGGCGGGCG	CGGCGGGAGG	AGGCAGCGCC
GCCGCCAAGA	TGGCGGACCT	GGAGCGGGTG	CTGGCCGACG	TGAGCTACCT	GATGGCCATG	GAGAAGAGCA
AGGCCACGCC	GGCCGCGCGC	GCCAGCAAGA	AGATACTGCT	GCCCCAGCCC	AGGTGAGGAG	AAGCT

4382

(2) INFORMATION FOR SEQ ID NO:2431:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2431:

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1  CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
61  GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
121 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
181 ACTAATTCCT GCCCTGCCCA ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAATCA
241 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
301 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGGAGGGAGA GGAGTGAAGT
361 AGCTTCCCTC CCGTGTGTTT TCCGTCCCTG CCCAGCAAG ACAACTTAGA TCTCCAGGAG
421 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGACAAG TGAGTTGTTG CCTGGGTTT
481 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
541 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCTT CACTGATGGA
601 CAAGGAGGTC TGTGCCAAG AAGAATCCAA TAAGCACATA TTGAGCACTT GCTGTATATG
661 CAGTATTGAG CACTGTAGGC AAGACCCAAG AAAGAGAAGG AGCCATCTCC ATCTGAAGG
721 AACTCAAAGA CTCAAGTGGG AACGACTGGG CACTGCCACC ACCAGAAAGC TGTCGACGA
781 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
841 GCTCAACCAA TAACTATTGC ACAACCCT GTCCCTGCCT CAGTCCCTT TTATGTAACA
901 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GACTTAGAA AAGCAAAGG
961 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAACG GGATATGTTT ACTATAAGGA
1021 AAAGACACTG AGGTCTAGAA ATAGCTCCGT GGAGCAGAAT CAGTATTGGG AGCCGGTGGC
1081 GGTGTGAAGC ACCAGTGTCT GGCACACAGT AGGTGCTCAT TGGCTCCCTT CCACCTGTCA
1141 TTCCACCAC CCGAGGCC CAACCGCCAC ACACACAGGA GCATTTGAG AGAAGGCCAT
1201 GTCTTCAAAG TCTGATTTGT GATGAGGCAG AGGAAGATAT TTCTAATCGG TCTTGCCAG
1261 AGGATCACAG TGCTGAGACC CCCCACCACC AGCCGGTACC TGGGAAGGGG GAGAGTGCAG
1321 CCCTGCTCAG GGACTGTTCC TGTCTCAGCA ACCAAGGGAT TGTTCTGTG AATCAATGGT
1381 TTATTGGAAG GTGGCCAGT ATGAGCCCTA GAAGAGTGTG AAAAGGAATG GCAATGGTGT
1441 TCACCATCGG CAGTGCCAGG GCAGCACTCA TTCCTTGAT AAATGAATAT TTATTAGCTG
1501 GTTGAGAGC TAGAACCTGG AGAGCTAGAA CCTGGAGAAC TAGAACCTGG AGGGCTAGAA
1561 CCTGGAGAGG CTAGAACCAA GAAGGGCTAG AACCTGGAGG GGCTAGAACC TAGAGAAGCT
1621 AAAACCTGAG CTAGAAGCTG GAGGACTAGA ACCTGGAGGG CTGGAATCTG AAGGGCTAGA
1681 ACCTGGAGGG CTGGAATCTG GAGAGCTAGA ACCTGGAGGG CTAGAACCTG GAGGGCTAGA
1741 ACCTAGAAGG GCTAGAACCT GGAGGGCTGG AATCTGGAGA GCTAGAACCT GGAGGGCTAG
1801 AACCTGGAGG GCTAGAACCT AGAAGGGCTA GAACCTGGAG GGCTAGAACC TGGCAGGTTA
1861 GAACCTAGAA GGGCTAGAAC CTGGAGAGCC AGAACCTGGA GGGCTAGAAC CTGGAAGGGC
1921 TAGAACCTGT AGAGCTAGAA CATGGAGAGC TAGAACCCGG CAGGCTAGAA CCTGGCAAGC
1981 TAGAACCTGG AGGGAATGAA CCTGGAGGGC TAGAACCTGG AGAATGAGAA AAATTTACAT
2041 GGCAAAGAGC CCATAAATCC TGACCAATCC AACTCTGAAT TTTAAAGCAA AAGCGTGAAA
2101 AAAAAGATT CCTCCTTACC CCAACCCAC TCTTTTTC CACCACCAC TCTCCTCTGC
2161 CTCAGTAAGT ATCTGGAGGA AGAAAACAGG TGAAAGAAGA AGTAAAAACC ATTTAGTATT
2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAAGG AAAAAAGAGG
2281 TGTGTTTTGT CACACAGGGC AGTCATTGAG CACCAGAGCA CGTGATGGT TGAGACTCTC
2341 TTAGGAGCAG AGCTCTGCCG CAATGSCCAT GTGGGGATCC ACACCTGGT TGAGGGGCAA
2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
2461 TGTCTGTGA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATTT CACATCCAAA
2521 CGAGAAAATC ATGTAAACAT GTGTCTTTT TGTAGAGCAT AATAATGGA TGAGGTTTTT
2581 GCAAAAAAAA AAAAAAAA

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(2) INFORMATION FOR SEQ ID NO:2432:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 961 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2432:

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1  ATGCCGCCCT CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC
61  CTGGTCTCTG TGCCCGGGAA CGTGCTGGT ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG
121 CGGATGCCA CCTTCTGCTT CATCGTCTCG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC
181 CTGGTCATCC CCTCGCCAT CCTCATCAAC ATTGGGCCAC AGACCTACTT CCACACCTGC
241 CTCATGGTTG CCTGTCCGGT CCTCATCCTC ACCCAGAGCT CCATCCTGGC CCTGCTGGCA
301 ATTGCTGTGG ACCGCTACCT CCGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC
361 CCCCAGAGGG CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG
421 ACCCCTATGT TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC
481 AGCATGGGGG AGCCCGTGAT CAAGTGGAG TTCGAGAAG TCATCAGCAT GGAGTACATG
541 GTCTACTTCA ACTTCTTTGT GTGGGTGCTG CCCCCTGCTC TCCTCATGGT CCTCATCTAC

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EPI-109

581

601 CTGGAGGTCT TCTACCTAAT CCGCAAGCAG CTCAACAAGA AGGTGTCCGC CTCCTCCGGC
661 GACCCGCGAGA AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCCTC
721 TTCCTCTTTG CCCTCAGCTG GCTGCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTGC
781 CCGTCTTGCC ACAAGCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC
841 TCGGCCATGA ACCCCATTGT CTATGCCTTC CGCATCCAGA AGTTCCGCGT CACCTTCCTT
901 AAGATTGGGA ATGACCATT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA
961 GAAGAGAGGC CTGATGACTA G

(2) INFORMATION FOR SEQ ID NO:2433:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2881 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO:2433:

1 ATGAGTGTCA GAAGTGTGAA GGGTGCTGT TCTGAATCCC AGAGCCTCCT CTCCTCTGT
61 GAGGCTGGCA GGTGAGGAAG GGTTAACCT CACTGGAAGG AATCCCTGGA GCTAGCGGCT
121 GCTGAAGGCG TCGAGGTGTG GGGGCACTTG GACAGAACAG TCAGGCAGCC GGGAGCTCTG
181 CCAGCTTTGG TGACCTTGGG CCGGGCTGGG AGCGCTGCGG CGGGAGCCGG AGGACTATGA
241 GCTGCCGCGC GTTGTCCAGA GCCCAGCCCA GCCCTACGGG CGCGGCCCGG AGCTCTGTTC
301 CCTGGAACCT TGGGCACTGC CTCTGGGACC CCTGCCGGCC AGCAGGCAGG ATGGTGCTTG
361 CCTCGTGCCC CTTGGTGCCC GTCTGTGAT GTGCCCAGCC TGTGCCCGCC ATGCCGCCCT
421 CCATCTCAGC TTTCCAGGCC GCCTACATCG GCATCGAGGT GCTCATCGCC CTGGTCTCTG
481 TGCCCCGGAA CGTGCTGGTG ATCTGGGCGG TGAAGGTGAA CCAGGCGCTG CGGGATGCCA
541 CTTTCTGCTT CATCGTGTGG CTGGCGGTGG CTGATGTGGC CGTGGGTGCC CTGGTCATCC
601 CCTCGCCAT CCTCATCAAC ATGGGGCCAC AGACCTACTT CCACACCTGC CTCATGGTTG
661 CCTGTCCGGT CCTCATCTC ACCCAGAGCT CCATCCTGGC CCTGCTGGCA ATTGCTGTGG
721 ACCGCTACCT CCGGGTCAAG ATCCCTCTCC GGTACAAGAT GGTGGTGACC CCCCAGGGG
781 CGGCGGTGGC CATAGCCGGC TGCTGGATCC TCTCCTTCGT GGTGGGACTG ACCCTATGT
841 TTGGCTGGAA CAATCTGAGT GCGGTGGAGC GGGCCTGGGC AGCCAACGGC AGCATGGGGG
901 AGCCCGTGAT CAAGTGCAGG TTCGAGAAGG TCATCAGCAT GGAGTACATG GTCTACTTCA
961 ACTTCTTTGT GTGGGTGCTG CCCCCTCTC TCCTCATGGT CCTCATCTAC CTGGAGGTCT
1021 TCTACCTAAT CCGCAAGCAG CTCAACAAGA AGGTGTCCGC CTCCTCCGGC GACCCGCGA
1081 AGTACTATGG GAAGGAGCTG AAGATCGCCA AGTCGCTGGC CCTCATCTC TTCCTCTTG
1141 CCCTCAGCTG GCTGCCTTTG CACATCCTCA ACTGCATCAC CCTCTTCTG CCGCTCTGCC
1201 ACAAGCCAG CATCCTTACC TACATTGCCA TCTTCCTCAC GCACGGCAAC TCGGCCATGA
1261 ACCCCATTGT CTATGCCTTC CGCATCCAGA AGTTCCGCGT CACCTTCCTT AAGATTGGGA
1321 ATGACCATT CCGCTGCCAG CCTGCACCTC CCATTGACGA GGATCTCCCA GAAGAGAGGC
1381 CTGATGACTA GACCCCGCCT TCCGCTCCCA CCAGCCACA TCCAGTGGG TCTCAGTCCA
1441 GTCCTCACAT GCCCGCTGTC CCAGGGGTCT CCCTGAGCCT GCCCCAGCTG GGCTGTTGGC
1501 TGGGGGCATG GGGGAGGCTC TGAAGAGATA CCCACAGAGT GTGGTCCCTC CACTAGGAGT
1561 TAATACCCT ACACCTCTGG GCCTGCAGG AGGCCTGGGA GGGCAAGGGT CCTACGGAGG
1621 GACCAGGTGT CTAGAGGCAA CAGTGTCTG AGCCCCCACC TGCCTGACCA TCCCATGAGC
1681 AGTCCAGCGC TTCAGGGCTG GGCAGGTCTT GGGGAGGCTG AGACTGCAGA GGAGCCACCT
1741 GGGCTGGGAG AAGGTGCTTG GGCTTCTGCG GTGAGGCAGG GGAGTCTGCT TGTCTTAGAT
1801 GTTGGTGGTG CAGCCCCAGG ACCAAGCTTA AGGAGAGGAG AGCATCTGCT CTGAGACGGA
1861 TGGAAGGAGA GAGGTTGAGG ATGCACTGGC CTGTTCTGTA GGAGAGACTG GCCAGAGGCA
1921 GCTAAGGGGC AGGAATCAAG GAGCCTCCGT TCCCACCTCT GAGGACTCTG GACCCAGGC
1981 CATACCAGGT GCTAGGGTGC CTGCTCTCCT TGCCCTGGGC CAGCCCAGGA TTGTACGTGG
2041 GAGAGGCAGA AAGGGTAGGT TCAGTAATCA TTTCTGATGA TTTGCTGGAG TGCTGGCTCC
2101 ACGCCCTGGG GAGTGAGCTT GGTGCGGTAG GTGCTGGCCT CAAACAGCCA CGAGGTGGTA
2161 GCTCTGAGCC CTCCTTCTTG CCCTGAGCTT TCCGGGGAGG AGCCTGGAGT GTAATTACCT
2221 GTCATCTGGG CCACCAGCTC CACTGGCCCC CGTTGCCGGG CCTGGACTGT CTTAGGTGAC
2281 CCCATCTCTG CTGCTTCTGG GCCTGATGGA GAGGAGAACA CTAGACATGC CAACTCGGGA
2341 GCATTCTGCC TGCCTGGGAA CGGGGTGGAC GAGGGAGTGT CTGTAAGGAC TCAGTGTGTA
2401 CTGTAGGCGC CCCTGGGGTG GGTTAGCAG GCTGCAGCAG GCAGAGGAGG AGTACCCCCC
2461 TGAGAGCATG TGGGGGAAGG CTTGCTGTC ATGTGAATCC CTCAATACCC CTAGTATCTG
2521 GCTGGGTTTT CAGGGGCTTT GGAAGCTCTG TTGCAGGTGT CCGGGGTCT AGGACTTTAG
2581 GGATCTGGGA TCTGGGAAG GACCAACCCA TGCCCTGCCA AGCCTGGAGC CCCTGTGTTG
2641 GGGGGCAAGG TGGGGGAGCC TGGAGCCCTT GTGTGGGAGG GCGAGGCGGG GGAGCCTGGA
2701 GCCCCTGTGT GGGAGGGCGA GGCGGGGAT CTGGAGCCC CTGTGTCGGG GGGCGAGGGA
2761 GGGGAGGTGG CCGTCGTTG ACCTTCTGAA CATGAGTGTG AACTCCAGGA CTTGCTTCCA
2821 AGCCCTTCCC TCTGTTGGAA ATTGGGTGTG CCCTGGCTCC CAAGGGAGGC CCATGTGACT
2881 AATAAAAAAC TGTGAACCT

(2) INFORMATION FOR SEQ ID NO:2434:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1921 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2434:

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1 CGCATTGTG TTTTAATAAA AGAATCTGGA AGATAAATAG TCTTGAAGAG AGACAAAGGA
61 AGGAAAATTT AAATCCTTAG ATTCAAGCAG AAGAATTCCA TGTGGAAGGT TTGGGTGTGT
121 GTTGTGTGTG TTTGGTGTGT TTTTGTITT TTTGTTTTTT TGTTTTTTTT TGAGATGGAG
181 TCTCGCTGTG TTACCGGGAG CGACAGAGCC GCACGGCCGA GTCGAGTCCC AGCCAGCTAC
241 CATCCCTCTG GAGCTTACCG GCCGGCCTTG GCTTCCCCAG GAATCCCTGG AGCTAGCGGC
301 TGCTGAAGGC GTCGAGGTGT GGGGGCACTT GGACAGAACA GTCAGGCAGC CGGGAGCTCT
361 GCCAGCTTGG GTGACCTTGG GTGCTTGCTT CGTGCCCTTT GGTGCCCCGC TGCTGATGTG
421 CCCAGCCTGT GCCCGCCATG CCGCCCTCCA TCTCAGCTTT CCAGGCCGCC TACATCGGCA
481 TCGAGGTGCT CATCGCCCTG GTCTCTGTGC CCGGGAACGT GCTGGTGATC TGGGCGGTGA
541 AGGTGAACCA GGCGCTGCGG GATGCCACCT TCTGCTTCAT CGTGTGCTG GCGGTGGCTG
601 ATGTGGCCGT GGGTGCCCTG GTCATCCCCC TCGCCATCCT CATCAACATT GGGCCACAGA
661 CCTACTTCCA CACCTGCCTC ATGGTTGCCT GTCCGGTCTT CATCCTCACC CAGAGCTCCA
721 TCCTGGCCCT GCTGGCAATT GCTGTGGACC GCTACCTCCG GGTCAAGATC CCTCTCCGGT
781 ACAAGATGGT GGTGACCCCC CGGAGGGCGG CGGTGGCCAT AGCCGGCTGC TGGATCCTCT
841 CCTTCGTGGT GGGACTGACC CCTATGTTTG GCTGGAACAA TCTGAGTGGC GTGGAGCGGG
901 CCTGGGCAGC CAACGGCAGC ATGGGGGAGC CCGTGATCAA GTGCGAGTTC GAGAAGGTCA
961 TCAGCATGGA GTACATGGTC TACTTCAACT TCTTTGTGTG GGTGCTGCCC CCGCTTCTCC
1021 TCATGGTCTT CATCTACCTG GAGGTCTTCT ACCTAATCCG CAAGCAGCTC AACAGAAGG
1081 TGTCCGCCTC CTCGGCGGAC CCGCAGAAGT ACTATGGGAA GGAGCTGAAG ATCGCCAAGT
1141 CGCTGGCCCT CATCTCTTTC CTCTTTGCC TCAAGCTGGCT GCCTTTGCAC ATCCTCAACT
1201 GCATCACCTT CTTCTGCCCC TCCTGCCACA AGCCAGCAT CTTACCTAC ATTGCCATCT
1261 TCCTCACGCA CGGCAACTCG GCCATGAACC CCATTGTCTA TGCCTTCCGC ATCCAGAAGT
1321 TCCGCGTAC CTTCTTAAG ATTTGGAATG ACCATTTCCG CTGCCAGCCT GCACCTCCCA
1381 TTGACGAGGA TCTCCAGAA GAGAGGGCTG ATGACTAGAC CCCGCTTCC GCTCCACCG
1441 CCCACATCCA GTGGGGTCTC AGTCCAGTCC TCACATGCCC GCTGTCCCAG GGGTCTCCCT
1501 GAGCCTGCCC CAGCTGGGCT GTTGGCTGGG GGCATGGGGG AGGCTCTGAA GAGATACCCA
1561 CAGAGTGTGG TCCCTCCACT AGGAGTTAAC TACCCTACAC CTCTGGGCCC TGCAGGAGGC
1621 CTGGGAGGGC AAGGGTCTTA CGGAGGGACC AGGTGTCTAG AGGCAACAGT GTTCTGAGCC
1681 CCCACCTGCC TGACCATCCC ATGAGCAGTC CAGAGCTTCA GGGCTGGGCA GGTCTGGGG
1741 AGGCTGAGAC TGAGAGGAG CCACCTGGGC TGGGAGAAGG TGCTTGGGCT TCTGCGGTGA
1801 GGCAGGGGAG TCTGCTGTG TTAGATGTTG GTGGTGCAGC CCCAGGACCA AGCTTAAGGA
1861 GAGGAGAGCA TCTGCTCTGA GACGGATGGA AGGAGAGAGG TTGAGGATGC ACTGGCCTGT
1921 TCTGTAGGAG AGACTGGCCA GA
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(2) INFORMATION FOR SEQ ID NO:2435:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1681 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2435:

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1 CCCAGCCCCG AGGCTCAGAA GCGGCAGGCG GAGGCGCGGT CCGGGCGCTA TGGCCATGCC
61 CCGCGGGTCT CACGCGGCTG CCCCTCGCCC GCGCGCGCTT CCGTAGGGGG CGCCCGGGGC
121 CCAGCTGGCC CGGCCATGCT GCTGGAGACA CAGGACGCGC TGTACGTGGC GCTGGAGCTG
181 GTCATGCGCG CGCTTTCGGT GCGGGGCAAC GTGCTGGTGT GCGCCGCGGT GGGCAGGCGC
241 AACACTCTGC AGACGCCCAC CAACTACTTC CTGGTGTCCC TGGCTGCGGC CGACGTGGCC
301 GTGGGGCTCT TCGCCATCCC CTTTGCCATC ACCATCAGCC TGGGCTTCTG CACTGACTTC
361 TACGGCTGCC TCTTCTCGC CTGCTTCGTG CTGGTGCTCA CGCAGAGCTC CATCTTCAGC
421 CTTCTGCGCG TGGCAGTCGA CAGATACCTG GCCATCTGTG TCCCGCTCAG GTATAAAAGT
481 TTGGTCACGG GGACCCGAGC AAGAGGGGTC ATTGCTGTCC TCTGGGTCTT TGCCTTTGGC
541 ATCGGATTGA CTCCATTCTT GGGGTGGAAC AGTAAAGACA GTGCCACCAA CAACTGCACA
601 GAACCTGGG ATGGAACCAC GAATGAAAGC TGCTGCCTTG TGAAGTGTCT CTTTGAGAAT
661 GTGGTCCCCA TGAGCTACAT GGTATATTTC AATTTCTTTG GGTGTGTCTT GCCCCCACTG
721 CTTATAATGC TGGTGATCTA CATTAGATC TTCCTGGTGG CCTGCAGGCA GCTTCAGCGC
781 ACTGAGCTGA TGGACCATC GAGGACCACC CTCAGCGGG AGATCCATGC AGCCAAGTCA
841 CTGGCCATGA TTGTGGGAT TTTTGCCCTG TGCTGGTTAC CTGTGCATGC TGTTAAGTGT
901 GTCACTCTTT TCCAGCCAGC TCAGGGTAAA AATAAGCCCA AGTGGGCAAT GAATATGGCC
961 ATTCTTCTGT CACATGCCAA TTCAGTTGTC AATCCCATTG TCTATGCTTA CCGGAACCGA
1021 GACTTCCGCT AACTTTTCA CAAAATTATC TCCAGGTATC TTCTCTGCCA AGCAGATGTC
1081 AAGAGTGGGA ATGGTCAGGC TGGGGTACAG CCTGCTCTCG GTGTGGGCCT ATGATCTAGG
1141 TTCTCGCCTC TTCCAGGAGA AGATACAAAT CCACAAGAAA CAAAGAGGAC ACGGCTGGTT
1201 TCTCATGTGA AAGATAGCTA CACCTCACA GGAATGGAC TGCCTCTCTT GAGCACTTCC
1261 CTGGAGCTAC CACGTATCTA GCTAATATGT ATGTGTGAGT AGTAGACCA AGGATTGACA
1321 AATATATTTA TGATCTATTC AGCTGCTTTT ACTGTGTGGA TTATGCCAAC AGCTTGAATG
1381 GATTCTAACA GACTCTTTTG TTTTAAAAG TCTGCCTTGT TTATGGTGA AAATTAAGTA
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EPI-109

583

1441 AACTATTTTA CTGTGAAACA GTGTGAACTA TTATAATGCA AATACTTTTT AACTTAGAGG
 1501 CAATGGAAAA ATAAAAGTTG ACTGTACTAA AAATGTATAC TTGTTGCCAG GAAGGTGACC
 1561 TCAAAAATTA AAAGTATAAT TATTCGGCCG GGCATGGTGG CTCACACCTG TAATTCCAGC
 1621 ACTTTGGGAG GCCAAGGCAG GCGGATCAGC AGGTCAGGAG TTCAAAACCA GCCTGTCCAA
 1681 TATAGTG

(2) INFORMATION FOR SEQ ID NO:2436:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1681 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2436:

1 GGGCAATTG TTAGTTATCC GCCGCCACCA AGACGCGGCA CGGCGCCTGG ACCGGAGGGG
 61 CCCCCGCGG GCGCGAACTT TGGGCTCGGG CGAGTGGGTG GTGCTCCGCC CAGCCCCAGA
 121 CGGGCGGGCG CGCGGGCCAA TGGGTGCCGC CTCTTGCCCG CGGGGGGCCC CGACCCGTGG
 181 GTCCCGGCCA CCAGCGCCCC AGCCCCGAGG CTCAGAAGCG GCAGGCGGAG GCGCGGTCCG
 241 GCGCTATGG CCATGCCCGG CCGGTCTCAC GCGGTGCCCC CTCGCCCGG GCGCCTTCGG
 301 TAGGGGGCGC CCGGGGCCCA GCTGGCCCGG CCATGCTGCT GGAGACACAG GACGCGTGT
 361 ACGTGGCGCT GGAGCTGGTC ATCGCCGCGC TTTCGGTGGC GGGCAACGTG CTGGTGTGCG
 421 CCGCGGTGGG CACGGCGAAC ACTCTGCAGA CGCCACCAA CTACTTCCTG GTGTCCCTGG
 481 CTGCGGCCGA CGTGGCCGTG GGGCTCTTCG CCATCCCCTT TGCCATCACC ATCAGCCTGG
 541 GCTTCTGCAC TGACTTCTAC GGCTGCTCTT TCCTCGCCTG CTTCTGTCTG GTGCTCACGC
 601 AGAGCTCCAT CTTACGCCCT CTGGCCGTGG CAGTCGACAG ATACCTGGCC ATCTGTGTCC
 661 CGCTCAGGTA TAAAAGTTG GTCACGGGGA CCGAGCAAG AGGGGTCAAT GCTGTCTCT
 721 TGGTCCTTGC CTTTGGCATC GGTATGACTC CATTCTGGG GTGGAACAGT AAAGACAGTG
 781 CCACCAACAA CTGCACAGAA CCCTGGGATG GAACACGAA TGAAAGCTGC TGCCTTGTGA
 841 AGTGTCTCTT TGAGAATGTG GTCCCATGA GCTACATGGT ATATTTCAAT TTCTTTGGGT
 901 GTGTTCTGCC CCCACTGCTT ATAATGCTGG TGATCTACAT TAAGATCTTC CTGGTGGCCT
 961 GCAGGCAGCT TCAGCGCACT GAGCTGATGG ACCACTCGAG GACCACCCTC CAGCGGGAGA
 1021 TCCATGCAGC CAAGTCACTG GCCATGATTG TGGGGATTTT TGCCCTGTGC TGGTTACCTG
 1081 TGCATGCTGT TAACTGTGTC ACTCTTTTCC AGCCAGCTCA GGGTAAAAAT AAGCCCAAGT
 1141 GGGCAATGAA TATGGCCATT CTTCTGTGTC ATGCCAATTC AGTTGTCAAT CCCATTGTCT
 1201 ATGCTTACCG GAACCGAGAC TTCCGCTACA CTTTTCACAA AATTATCTCC AGGTATCTTC
 1261 TCTGCCAAGC AGATGTCAAG AGTGGGAATG GTCAGGCTGG GGTACAGCCT GCTCTCGGTG
 1321 TGGGCCTATG ATCTAGGCTC TCGCCTCTTC CAGGAGAAGA TACAAATCCA CAAGAAACAA
 1381 AGAGGACACG GCTGGTTTTC ATTGTGAAAG ATAGCTACAC CTCACAAGGA ATGGACTGCG
 1441 CTCTCTTGAG CACTTCCCTG GAGTACCAC GTATCTAGCT AATATGTATG TGTCAAGTAGT
 1501 AGGTCCTAAG GATTGACAAA TATATTTATG ATCTATTCAG CTGCTTTTAC TGTGTGGATT
 1561 ATGCCAACAG CTTGAATGGA TTCTAACAGA CTCTTTTGTG TTTAAAAGTC TGCCTTGTTC
 1621 ATGGTGGAAA ATTACTGAAA CTATTTTACT GTGAAACAGT GTGAACATAT ATAATGCAAA
 1681 TACTTTTAA CTTAGAGGCA ATGAAAAAT AAAAGTTGAC TGTACTAAA ATG

(2) INFORMATION FOR SEQ ID NO:2437:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2461 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2437:

1 GAATTCCCAG ATGGGCAGAG GTGGCTGGGC TGGTGACCCT AAGTGTGTCT CCTGCCTTTA
 61 TTCTCTCTAG TGGGTATTTC TTTCTATGTT TATCTTGCCCT ACAGCATGCT GTGTTTGGAC
 121 ACAAACCCCT TTCCTTGGTT TCTCTGACCC AGCTGAGATG GACTGATTCC AAAAGAACTC
 181 ACCTATGTAC TGGGGTAGGG GAGGGAGGGT TTTTTCAGT ATTTAACTAA GGTTCAAAGA
 241 GTGCTATATA GTGAGAAAGG CTCTTTTTTT TTTTTTTTTT TTTTTTGGCA GAGTGTCTGCC
 301 TCCTAGAAAT TTCTCTTGGT AACTTCCTTC TCTGAAGCAC AGATAAAGAA AACAATTACA
 361 GTAGAAACAT TTATGAGGGA CACATTGGAG GCCGATGAAG CTTTCAAGT TCCAGCAGTG
 421 CAGGGATGTG GGCAGAACTG ACATTGGAAG ATACTAGAAT GATGGAAAT CAGTTGGAGA
 481 GGAAGTCCCT TTTTAATGTC TGGGGAGTCT GCTCAGGGAG AAATGACAAG TCTGGCGGGG
 541 ACAAGTATGG GATTGGTAA GACTTGGATC AACTTGGGAT ACAGGGTGGG GGTCTGGGAGT
 601 GGAATCAATG AATGATGCCA GAGCAGATCA ACTAACAGA GGACCCCTGAT GAGCCCCAGG
 661 CAGAGGCGTC TCCCTTATGC CCCACTCTGA AGTGTGTGTT AGTAAACACC AGAACGCCAT
 721 TGTGTGTACT GCTGAATTTT ATTTTGGGCT GTACATATTT AGATGCTTAA GGTAAAAATG
 781 ATAAAGCCCT CAAGCCACTG TGTGGGTTTG GGTCCAAGTG TTCCTTCTTG CTGCCTCTCT
 841 AACACGCTTG GTTAAATAA TCCTTTTGA TGGTGTGAG AAGCACCTGA ACCAAGTGGG
 901 TCCCCAATA ACAATGGCGT GCAAGTGTCT GGTCCCCAGA AGTTGGTGAC TAGGTAAGCA
 961 GCTTCAGGGA GAGGGGGCTG ATTCCAGAG AGTCGCCTGT TCCTGCGGGG ATGGGGCTGA
 1021 GGCTTGGGGA ATGTGGGCAG GAGGATATGC CATTTGATTG TGTGACACG GTTCTTTTCC
 1081 CTTCTTTCTG TATGTCTGGT CATTCTGCTA TTCTGTCTGT CCTCACATAG GTTGGACATT

EPI-109

584

1141 GGCCGGCTGC CAGCATAAGT GCCAGTGTGA TTTTGCTAGG TGTGAGCTGA GAAAGAGAGG
1201 TGGAGGCTAA GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGGCCCT TCTGAGCAGG
1261 GAATCTTTGC TTATCCCTTT GACCAAGGAT CTTTGCTGCA AAGGCTGGGT ATCGGCTGTG
1321 CTCAGCAAAG CGTCAACTCG TGCAAGAACT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA
1381 GGCTGCCACC AAAGTCTCTT TTTGTTCCT CTGCTTCTCC CGTTTGCCTC CTTATCATGA
1441 GATCTTTTTC CTAAGCTGGC AGAAAGATTG CATAGTCAGT GCTTCCAGCT CTGCTCCAC
1501 CTGATCCTGC ACTGTCCTCT GGTCCCTGAA TGAATGAACT CTGATACCCA ATCTTGCTC
1561 GAGCCTTCTC TATGCCACTC ATGGCTCCTC TTCTGCTCTT TCCATCTTTT TGCTGAGAGT
1621 TCTGAGCTCT GTACTTCCTC TTGGCCCATC TCACTTCCTG AAACACCCCT GAAGAGGGTT
1681 GCTTATCTTG ATGGAAGTCA AAAAGCCAAA AAGCTGCAGG CAGAGGCGTT GAGGACATCT
1741 GTTTGGGGAA CTAAGAGCAG CAGCACTTTC AGATTGAGTC CATATAGAGC TGTCCTACAG
1801 CATTCTGGAA ACTTGAGGAT GTGCGGTGCA TAAAGGGGCT GGAAGTGACC CACCTGTGAT
1861 GAGCCCTTTC TAAGGAGAAG GGTTCCAAAG AGATCACCCC ACCAGAAAAG GGTAGGAATG
1921 AGCAAGTTGG GAATTTTAGA CTGTCACTGC ACATGGACCT CTGGGAAGAC ATCTGGCGAG
1981 AGCTAGGCCC ACTGGCCCTA CAGACGGATC TTGCTGGCTC ACCTGTCCCT GTGGAGGTTT
2041 CCCTGGGAAG GCAAGATGCC CAACAACAGC ACTGCTCTGT CATTGGCCAA TGTACCTAC
2101 ATCACCATGG AAATTTTCAT TGGACTCTGC GCCATAGTGG GCAACGTGCT GGTCTCTGCT
2161 GTGGTCAAGC TGAACCCAG CCTGCAGACC ACCACCTTCT ATTTCAATTG CTCTCTAGCC
2221 CTGGCTGACA TTGCTGTTGG GGTGCTGGTC ATGCCCTTGG CCATTGTTGT CAGCCTGGGC
2281 ATCACAATCC ACTTACACAG CTGCTTTTTC ATGACTTGCC TACTGCTTAT CTTTACCCAC
2341 GCCTCCATCA TGTCTTGTCT GGCCATCGCT GTGGACCGAT ACTTGCGGGT CAAGCTTACC
2401 GTCAGGTAGC CTGCGGCGTG GGGTGGGCAG CAATTGAGGC AGCTGGGAAA TGAGGCTACA
2461 AAGCCAGAGC

(2) INFORMATION FOR SEQ ID NO:2438:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1321 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2438:

1 CTGCTGAATT TTATTTTGGG CTGTACATAT TTAGATGCTT AAGGTAAAAA TGATAAAGCC
61 CTCAAGCCAC TGTGTGGGTT GGGTCCAAGT GTTCCTTGCT GCTGCCTCTC TAACACGCCT
121 GGTTAAATA ATCCCTTTGG ATGGTGTGTA GAAGCACCTG AACCAAGTGG GTCCCAAAT
181 AACTATGGCG TGCAAGTGTC TGTTCCCGAG AAGTTGGTGA CTAGGTAAGC GACTCAGGGA
241 GAGGGGCTGA TTCCCAGACA TTGCGCTGTT CCTGCTGGGA TGGGGCTGAG GCTTGGGGAA
301 TGTGGGCAGG AGGATATGCC ATTTGATTCT GTTGACACAG TTCTTTTCCC TTCTTTCTGT
361 ATGTCTGGTC ATTCTGCTAT TCTGTCGTTT CTCACATAGG TTGGACATTG GCCGGCTGCC
421 AGCATAAGTG CCAGTGTGAT TTTGCTAGGG TGTGAGCTGA GAAAGAGAGG TGGAGGCTAA
481 GCAGGTGTGA TGCTTCTCAG AGGTGCTGAG TTTTGGCCCT TCTGAGCAGG GAATCTTTGC
541 TTATCCCTTT GACCAAGGAT CTTTGTCTCA AAGGCTGGGT ATCGGCTGTG CTCAGCAAAG
601 CGTCAACTCG TGCAAGAACT TAGCAGGAAT AGTTCTGGCT AAGGTTAGGA GGCTGCCACC
661 AAGGTCTCTT TTTGTTCCT CTGCTTCTCC CGTTTGCCTC CTTATCATGA GATCTTTTTC
721 CTAAGCTGGC AGAAAGATTG CATAATCAGT GCTTCCAGCT CCGCTCCAC CTGATCCTGC
781 ACTGTCCTCT GGTCCCTGAA TGAATGAACT CTGATACCCA ATCTTGCTC GAGCCTTCTC
841 TATGCCACTC ATGGCTCCTC TTCTGCTCTT TCCATCTTTT TGCTGAGAGT TACTGAGCTC
901 TGTAATCTCT CTGGGCCAT CTCATTCCTT GAAACACCCC TGAAGAGGGT TGCTTATCTT
961 GATGGAAGTC AAAAAGCCAA AAGCTGCAG GCAGAGGCGT TGAGGACATC TGTGTTGGGA
1021 ACTAAGAGCA GCAGCACTT CAGATTGAGT CCATATAGAG CTGTCCTACA GCATTCTGGA
1081 AACTTGAGGA TGTGCGGTGC ATAAAGGGGC TGGAAAGTAC CCACCTGTGA TGAGCCCTTT
1141 CTAAGGAGAA GGGTTTCCAA GAGATCACC CACCAGAAAA GGGTAGGAAT GAGCAAGTTG
1201 GGAATTTTAG ACTGTCAGT CACATGGACC TCTGGGAAGA CGTCTGGCGA GAGCTAGGCC
1261 CACTGGCCCT ACAGACGGAT CTTGCTGGCT CACCTGTCCC TGTGGAGGTT CCCCTGGGAA
1321 GGCAAGATGC CCAACAACAG CACTGCTCTG

(2) INFORMATION FOR SEQ ID NO:2439:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1741 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2439:

1 CGAATTCGGG GGACATCTGT TTGGGGAAGT AAGAGCAGCA GCACTTTCAG ATTCACTCCA
61 TATAGAGCTG TCCTACAGCA TTCTGGAAAC TTGAGGATGT GCGGTGCATA AACGGGCTGG
121 AAGTGACCCA CCTGTGATGA GCCCTTTCTA AGGAGAAGGG TTTCCAAGAG ATCACCACAC
181 CAGAAAAGGG TAGGAATGAG CAAGTTGGGA ATTTTAGACT GTCATGCACT ATGGACCTCT
241 GGAAGACGT CTGGCGAGAG CTAGGCCAC TGGCCCTACA GACGGATCTT GCTGGCTCAC
301 CTGTCCCTGT GGAGGTTCCC CTGGGAAGGC AAGATGCCCA ACAACAGCAC TGCTCTGTCA
361 TTGGCCAATG TTACCTACAT CACCATGGAA ATTTTCATTG GACTCTGCGC CATAGTGGGC

421 AACGTGCTGG TCATCTGCGT GGTCAAGCTG AACCCAGCC TGCAGACCAC CACCTTCTAT
481 TTCAATTGTCT CTCTAGCCCT GGCTGACATT GCTGTTGGGG TGCTGGTCAT GCCTTTGGCC
541 ATTGTTGTCA GCCTGGGCAT CACAATCCAC TTCTACAGCT GCCTTTTTAT GACTTGCCTA
601 CTGCTTATCT TTACCCACGC CTCCATCATG TCCTTGCTGG CCATCGCTGT GGACCGATAC
661 TTGCGGGTCA AGCTTACCGT CAGATACAAG AGGGTCACCA CTCACAGAAG AATATGGCTG
721 GCCCTGGGCC TTTGCTGGCT GGTGTCATTG CTGGTGGGAT TGACCCCAT GTTTGGCTGG
781 AACATGAAAC TGACCTCAGA GTACCACAGA AATGTCACCT TCCTTTCATG CCAATTTGTT
841 TCCGTCATGA GGATGGACTA CATGGTATAC TTCAGCTTCC TCACCTGGAT TTTTCATCCCC
901 CTGGTTGTCA TGTGCGCCAT CTATCTTGAC ATCTTTTACA TCATTGCGAA CAAACTCAGT
961 CTGAACCTAT CTAACCTCAA AGAGACAGGT GCATTTTATG GACGGGAGTT CAAGACGGCT
1021 AAGTCCTTGT TTCTGGTTCT TTTCTGTTT GCTCTGTCAT GGCTGCCTTT ATCTCTCATC
1081 AACTGCATCA TCTACTTAA TGGTGAGGTA CCACAGCTTG TGCTGTACAT GGGCATCCTG
1141 CTGTCCCATG CCAACTCCAT GATGAACCCT ATCGTCTATG CCTATAAAT AAAGAAGTTC
1201 AAGGAAACCT ACCTTTTGAT CCTCAAAGCC TGTGTGGTCT GCCATCCCTC TGATTCTTTG
1261 GACACAAGCA TTGAGAAGAA TTCTGAGTAG TTATCCATCA GAGATGACTG TGTCTCATTG
1321 ACCTTCAGAT TCCCCATCAA CAAACACTTG AGGGCCTGTA TGCTGGGCC AAGGGATTTT
1381 TACATCCTTG ATTACTTCCA CTGAGGTGGG AGCATCTCCA GTGCTCCCCA ATTATATCTC
1441 CCCCCTCCA CTACTCTCTT CCTCCACTTC ATTTTTCCTT TGTCCTTTCT CTCTAATTCA
1501 GTGTTTTGGA GGCCTGACTT GGGGACAACG TATTATGTAT ATTATTGTCT GTTTTCCTTC
1561 TTCCCAATAG AAGAATAAGT CATGGAGCCT GAAGGGTGCC TAGTTGACTT ACTGACAAAA
1621 GGCTCTAGTT GGGCTGAACA TGTGTGTGGT GGTGACTCAT TTCCATGCCA TTGTGGAATT
1681 GAGCAGAGAA CCTGCTCTCG GAGGATGCCT AGGAGATGTT GGAACAGAA GAAATAAAT
1741 GAGTTTAAGG GGGACTTAAA CTGCTGAATT C

(2) INFORMATION FOR SEQ ID NO:2440:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2041 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2440:

1 GCCGCCGCCG CCAAGATGGC GGACCTGGAG GCGGTGCTGG CCGACGTGAG CTACCTGATG
61 GCCATGGAGA AGAGCAAGGC CACGCCGGCC GCGCGGCCA GCAAGAAGAT ACTGCTGCCC
121 GAGCCAGCA TCCGCACTGT CATGCAGAAG TACCTGGAGG ACCGGGGCGA GGTGACCTTT
181 GAGAAGATCT TTTCCAGAA GCTGGGGTAC CTGCTCTTCC GAGACTTCTG CCTGAACCAC
241 CTGGAGGAGG CCAGGCCCTT GGTGGAATTC TATGAGGAGA TCAAGAAGTA CGAGAAGCTG
301 GAGACGGAGG AGGAGCGTGT GGCCCGCAGC CGGAGATCT TCGACTCATA CATCATGAAG
361 GAGCTGCTGG CCTGCTCGCA TCCCTTCTCG AAGAGTGCCA CTGAGCATGT CCAAGGCCAC
421 CTGGGGAAGA AGCAGGTGCC TCCGGATCTC TTCCAGCCAT ACATCGAAGA GATTGTCAA
481 AACCTCCGAG GGGACGTGTT CCAGAAATTC ATTGAGAGCG ATAAGTTCAC ACGGTTTTGC
541 CAGTGAAGA ATGTGGAGCT CAACATCCAC CTGACCATGA ATGACTTCAG CGTGCATCGC
601 ATCATTGGGC GCGGGGGCTT TGGCGAGGTC TATGGGTGCC GGAAGGCTGA CACAGGCAAG
661 ATGTACGCCA TGAAGTGCTT GGACAAAAAG CGCATCAAGA TGAAGCAGG GGAGACCCTG
721 GCCCTGAACG AGCGCATCAT GCTCTCGCTC GTCAGCACTG GGGACTGCCC ATTCATTGTC
781 TGATGTCTAT ACGCGTTCCA CACGCCAGAC AAGCTCAGCT TCATCCTGGA CCTCATGAAC
841 GGTGGGGACC TGCACTACCA CCTCTCCCAG CACGGGGTCT TCTCAGAGGC TGACATGCGC
901 TTCTATGCGG CCGAGATCAT CCTGGGCCCTG GAGCACATGC ACAACCGCTT CGTGGTCTAC
961 CGGGACCTGA AGCCAGCCAA CATCCTTCTG GACGAGCATG GCCACGTGCG GATCTCGGAC
1021 CTGGGCCTGG CCTGTGACTT CTCCAAGAAG AAGCCCCATG CCAGCGTGGC CACCCACGGG
1081 TACATGGCTC CGGAGGTCCT GCAGAAGGGC GTGGCCTACG ACAGCAGTGC CGACTGGTTC
1141 TCTCTGGGGT GCATGCTCTT CAAGTTGCTG CCGGGGCACA GCCCTTCCG GCAGCACAAAG
1201 ACCAAAGACA AGCATGAGAT CGACCGCATG ACGCTGACGA TGGCCGTGGA GCTGCCCGAC
1261 TCCTTCTCCC CTGAACACG CTCCCTGCTG GAGGGGTGTC TGCAGAGGGA TGTCAACCGG
1321 AGATTGGGCT GCCTGGGCCG AGGGGCTCAG GAGGTGAAAG AGAGCCCTT TTTCCGCTCC
1381 CTGGACTGGC AGATGGTCTT CTGTCAGAA TACCCTCCCC CGCTGATCCC CCCACGAGGG
1441 GAGGTGAACG CGGCCGACGC CTTGACATT GGCTCCTTCG ATGAGGAGGA CACAAAAGGA
1501 ATCAAGTTAC TGGACAGTGA TCAGGAGCTC TACCGCACT TCCCCCTCAC CATCTCGGAG
1561 CGGTGGCAGC AGGAGGTGGC AGAGACTGTC TTCGACACCA TCAACGCTGA GACAGCCGG
1621 CTGGAGGCTC GCAAGAAAGC CAAGAACAAG CAGCTGGGCC ATGAGGAAGA CTACGCCCTG
1681 GGCAAGGACT GCATCATGCA TGGCTACATG TCCAAGATGG GCAACCCCTT CTGACCCAG
1741 TGGCAGCGGC GGTACTTCTA CCTGTTCCCC AACCGCCTCG AGTGGCGGGG CGAGGGCGAG
1801 GCCCCGAGA GCCTGCTGAC CATGGAGGAG ATCCAGTCGG TGGAGGAGAC GCAGATCAAG
1861 GAGCGCAAGT GCCTGCTCCT CAAGATCCCG GGTGGGAAAC AGTTCATTTT CGAGTCCGAT
1921 AGCGACCTG AGCTGGTGCA GTGGAAGAA GAGCTGCGCG ACGCCTACCG CGAGGCCAG
1981 CAGCTGGTGC AGCGGGTGCC CAAGATGAAG AACAAAGCCG GCTCGCCCGT GGTGGAGCTG
2041 AGCAAGGTGC CGCTGGTCCA GCGCGGCAGT GCCAACGGCC TCTGACCCGC CCACCCGCTT

(2) INFORMATION FOR SEQ ID NO:2441:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7321 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xl) SEQUENCE DESCRIPTION: SEQ ID NO:2441:

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1 AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTTTAA ATGAATGCTT TAAGCCGGGT
61 GCAGTGCCTC ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTCG AGACCAACCT GGCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGGT GACAGAGAGA GACTCCGTCT CAAAAAATAA AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCACTGTT GAATTTTCTT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCCT TTCCCTCTGC AAACCTCCCTG CTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTTGCAAGTG TCCAAACCTT GATCCCAGCT
541 GTGCTTAGGG GTTCTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCTG
601 TTTACCAACT CAGCTTTTGG TTTTAGTGTG TTTGAATTCC CTGAAGTAC CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAAGCTGG GATGTGGCAG ATCCGTGGCT ACATTCATGC ACACACACAC
781 ACCCACATAC CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTTCACA CCCTTCTTAG ACAGGGGTCA CTTGGTATCC TGGAGAGAGT
901 GTGAAGTCTT GGAATGGAAA GAGGGGGGAT TAAGCCCCAC CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCGCCTTGT TTACCTCCTC TGTGAGGCAA GCACAGAGCC
1021 TAGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTGAG AGCAAGGGTC
1081 GGGAAATGAA GGCCCTTGGG AAAAAAGGCC CTTTCACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTAATTG GTAAGCCAAG CCCGAAGGGA CTGGAATATC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCCTGT CTCCATCACA
1261 GTGCTCCAGT CCAGACCCCT CCTCTGAGCT CCAGACCCCTG CTGGACCCAA CCAGCCCTAT
1321 GGGGTGCGAT CCCACCTGCT CTGGAATTCT CCAAAGAACC TCCCCTTTAA CAGTTCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCCTCT AAATCAGCCC CCCATCTCTG
1441 CCTTTGCAAG AGATGGAAGC CATGACACCT GCCTCGCCCC TGCTCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCAATG TCAGGTTTAC CTTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTCTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATTC ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGCTCA
1741 CCCTCAGTGT TCTCATCAAT AATCCACTCC CCTCACAGGC GCGTTTGGGA CCCCATGTTT
1801 TATGCTCTCA CAGGACCTTT TGCTTGATTT TTTACTGTAC TTAGGTCAGT TTGCAAGTAT
1861 TAAGTGAAGT AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGCTCCTAGC CATTGTATAC
1921 CTAGCACCAG TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTTCTCC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCCAGCCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCCAG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAAAATGTT TCTCCCTGGA AGATATCAAT GTTCTGTCTT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGCC TCTTTGAGG GAGTCAAAGG GATTCTCAGT TTTACTAGT AGGGGAGGTG
2221 GGCAGACACC CTGGAGAACT CCTGGAAAG CTCAACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCAAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGGTC AGGGAGGAGA
2401 AGGGCACATT CCTGGTTGTT ATATGTTTCT ATCTATCCCA GATGAAGTGT GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAAT GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC
2521 CTTGGAACA AAATATCTCC AACACATGGC TGACATTGAG TGGGAGATCA GAACACCCTA
2581 AAGAGAGAA TTAAGGGGAG GGGGAGGAGG ACCTGAGCCA GAGTAGAAGC AGAGGATAGT
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAAGC
2701 CTCCACCCTG CTGCAGGTGC TGCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGCTTGG
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAAG TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGAGC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAAGGAGG CTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGCTTAT
3121 CTCTGTTCCA AGATGTCTGG GGCCTTGGTT GGAAGATTCA AAGGCTAGGA AACCAGGAGC
3181 CACCAAAAGC GTAACCTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCCTCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA GCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAAGT CCAGCCCAGC TCCAGGAGAA GAGGAAGCAG ATTCTCTCTT
3421 TTGAAATGAA GAATATCAAG TAATTCGGGG GGCAATATGA AGCCACCAAG CACCAAGGG
3481 ATCTTTTTAG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAG
3541 CCTCACTTCC TTAGACCCCA GTGAAGACCA CGCTTACTCC CTCACTCAAC CTCTTGCTAC
3601 TTCCCACTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA CAGTTCCTCC
3661 AGTCTGTGTC CTCTGCTCAG GCTGTTCCCC CTGCTGGTTC CACTTGTCTT CTTCTTGTG
3721 CGGTCAAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACCTCCA ACCCCTTACC
3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCCCT GTCCTCTCCA GGGCACCCTC
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3841 CACCCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAAA ACATTTAAAG
3961 GATAGAAGCA TTGATTGTG GGTCCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
4021 TAGAAGCAAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCCGT
4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
4141 CCCTTTTCTT TCTCTCACC ACAGCACAGG GCACTGGGAA AATGCCCAAT GAGTCCTGCC
4201 TCTGGGTTGT GCTTTGGACT TTTCAAGTGT TCTCGCATCC ACTCTTCAAC TTGAATGTTG
4261 CAACAGCCAT GAAAAAGAA ATGCAAAGCG ATTCAGGATG AGAGCAATAC CCTACTCCAA
4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGCTAGGA
4381 GTGGAATCA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCTAAGAA TGAAGAGGA
4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGGC TGGGGCATT
4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGGTA GTGGTTTTAA CTGCCATGTT
4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACTT CCCCAGCGTG ACACGGCTTA
4741 TAAGTAAGGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAAG TCCCCACCCC
4801 CCTCGCCATC TGTATCCTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
4861 CACGATGCCA CAGACTGTCC AGGAAGACAG AACTAGGCA GATGGGCTGG CCATGGTCTC
4921 CAAGCCAGAC TGAATCTCC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAATTAA
4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCCG
5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TTAAGGAGG TCAAGGGTCC
5101 AACACTTGAG ATTGTTAGTG CTGTTGTGGG ATACTGGCCA AGGAAATATC CCAGTGGAGC
5161 CTCGAGATGA AGAATCATG GCCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAG
5221 ACCCAGGGGA GTCAGGTGCA CTGGAGCGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
5281 CGGCTTCTCC TTGTCCTGGC TGGTTGTCTT TAACCCCTGT CTCCTTCTGG ACCAGTTTTT
5341 GTCCTTCCCT TGTGACCGCT GAGGGGTAAC AGCCTCTTTC CACTTTCTTT CAGCGCCGAC
5401 ATGCTCAATG TCACCTTGCA AGGGCCCACT CTTAACGGGA CCTTTGCCCA GAGCAAATGC
5461 CCCCAGTGAG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCTTCTCT TGGGTGCTG
5521 TTCGTGCTGG CCACCCTAGA GAACATCTTT GTCCTCAGCG TCTTCTGCCT GCACAAGAGC
5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCCTGGCC
5641 TGGCGGCTGC CCTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTTC
5761 CTGATGCTGG TGAGCATCGA CCGCTACCTG GCCCTGGTGA AAACCATGTC CATGGGCCGG
5821 ATGCGGGCG TGCGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
5881 CTGAGCTCAC CCATGCTGGT GTTCCCGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
5941 GTCACCGCTT GTGTCATCAG CTACCCATCC CTCATCTGGG AAGTGTTCAC CAACATGCTC
6001 CTGAATGTCG TGGGCTTCCT GCTGCCCTG AGTGTCTCA CCTTCTGCAC GATGCAGATC
6061 ATGCAAGTGC TCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
6121 GCCACGGTGC TAGTCCTGGT TGTGCTGCTG CTATTTCATCA TCTGCTGGCT GCCCTTCCAG
6181 ATCAGCACCT TCCTGGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
6241 CGCATCATCG ATGTAATCAC ACAGATCGCC TCCTTCATGG CCTACAGCAA CAGCTGCCTC
6301 AACCCACTGG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
6361 CAGGGAGTGT GCCAGAAAGG GGGCTGCAGG TCAGAACCCA TTCAGATGGA GAACTCCATG
6421 GGCACACTGC GGACCTCCAT CTCCGTGGAA CGCCAGATTC ACAAAGTGA GAGTGGGCA
6481 GGGAGCAGAC AGTGAGCAAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATTGAGGG
6541 ACAGTTGCTT TTCAGCATGG GCCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTTGGG
6601 AAATGAGTTG ATGTCTCCGG TAAACACCG GAGACTAATT CCTGCCCTGC CCAATTTTGC
6661 AGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAATTCACA
6721 ACAGCATTAC TGTTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
6781 GAGGAGGCTT GGGGGCAGGG AGAGGAGTGA CTGAGCTTCC CTCCCGTGTG TTCTCCGTCC
6841 CTGCCCCAGC AAGACAACCT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
6901 CTGAGTGCAC AAGTGAGTTG TTGCCCTGGG TTTCTTTAAT CTATTGAGCT AGAACTTTGA
6961 AGGACAATTT CTTGCATTAA TAAAGGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
7081 CAATAAGCAC ATATTGAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG
7141 AAGAAAGAGA AGGAGCCATC TCCATCTTGA AGGAAGTCAA AGACTCAAGT GGGAAAGACT
7201 GGGCACTGCC ACCACCAGAA AGCTGTTTGA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA
7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTACCAA TACTATTGCA CACCACCTGT
7321 CTGCCTC

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(2) INFORMATION FOR SEQ ID NO:2442:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 241 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2442:

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1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC

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121 TGAAGTGGCC ATGCCGCTTG CTCCGGAGAA GGTGGGTGCC GGGCAGGGGC TGCTCCAGCC
181 GCCTCACCTC TGCTGGGAGG ACAAACCTGTC CCAGCACAGA GGGAGGGAGG GAGGGCAGCC
241 AGCGGGGAGA AGTTTCCCTG TGGTCGTGGG GAGTT

(2) INFORMATION FOR SEQ ID NO:2443:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1441 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2443:

1 GAGCTCTTCA ATATTTTAGT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGCAGCCTGT CCATAGACCT CTGTCCCCAA
121 CTGGCAAGTC AGGAACTCC AGATTAAGGA GCCCAATGT GGTGAACAG CCAGGTGCAC
181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCCATAAAC TGATCTGAGA CTCTGTTTCC
301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGGTTT TAGGCTTGT TATGAATCAA
361 GTCACAGGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCCT CTGGCCCTCC TGTCTCTTCC
421 CCAGATCCAC TGGGCCCACT CTTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGTCCT ACCGTCTCAG CCCTGGGAGT
541 GTAAAGTGCT GCAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
661 GCGCAAAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTCGCCC TTGGGAGCCG
721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCCTGCCC ACCTGGCCAC CCTCTGTTTA
781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAAATC AGACACAAA TAACCACCTC
841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGGC
901 TTCCAGGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTT GCCGTCCCAC GACTCCAACG
961 GGAGCCGGG CCTACGCAA CATGGAATC TTCCAAGAGC CTCCCTGGCC CCCAGGGCTC
1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCCGGCCCCA CAGCCAGCCT
1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGGAAGT CCCAGGAGG
1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCCGCCGCA CTCCAGCTCT
1201 GGCTTCTGGG CTCCGAGGAG GGGTGGGAC GGTGGTGACG GTGGGACAT CAGGCTGCCC
1261 CGCAGTACCA GGGAGCGACT GAAAGTCCCA TGCCGCTTGC TCCGAGAAG GTGGGTGCCG
1321 GGCAGGGGCT GCTCCAGCCG CCTCACCTCT GCTGGGAGGA CAACTGTCC CAGCACAGAG
1381 GGAGGGAGGG AGGGCAGGCA GCGGGAGAA GTTCCCTGT GGTCTGGGG AGTTGGGAAA
1441 AGTTCCCTTC CTTCGGAGG GAGG

(2) INFORMATION FOR SEQ ID NO:2444:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2444:

1 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAACGC CAGCAGGGCT
61 GCTGTGAATT TGTGAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
121 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
181 ACTAATTCCT GCCCTGCCCA ATTTTGCAGG GAGCATGGCT GTGAGGATGG GGTGAATCA
241 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTCG TGCCACACCT
301 GAGCCAGCCT GTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGGAGGGAGA GGAGTGACTG
361 AGCTTCCCTC CCGTGTGTT TCCGTCCCTG CCCAGCAAG ACAACTTAGA TCTCCAGGAG
421 AACTGCCATC CAGCTTTGTT GCAATGGCTG AGTGACAAG TGAGTTGTTG CCCTGGGTTT
481 CTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
541 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCCT CACTGATGGA
601 CAAGGAGGTC TGTGCCAAG AAGAATCCAA TAAGCACATA TTGAGCACTT GCTGTATATG
661 CAGTATTGAG CACTGTAGGC AAGACCCAAG AAAGAGAAGG AGCCATCTCC ATCTTGAAGG
721 AACTCAAAGA CTCAAGTGGG AACGACTGGG CACTGCCACC ACCAGAAAGC TGTTCCGACGA
781 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
841 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCCTT TTATGTAACA
901 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
961 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAAGT GGATATGTTT ACTATAAGGA
1021 AAAGACACTG AGGTCTAGAA ATAGCTCCGT GGAGCAGAAT CAGTATTGGG AGCCGGTGGC
1081 GGTGTGAAGC ACCAGTGTCT GGCACACAGT AGGTGCTCAT TGGCTCCCTT CCACCTGTCA
1141 TTCCACACAC CCTGAGGCC CAACCGCCAC ACACACAGGA GCATTGAGG AGAAGGCCAT
1201 GCTCTCAAAG TCTGATTGT GATGAGGCAG AGGAAGATAT TTCTAATCGG TCTTGGCCAG
1261 AGGATCACAG TGCTGAGACC CCCACCAACC AGCCGGTACC TGGGAAGGGG GAGAGTGACG
1321 GCCTGCTCAG GGAAGTGTCC TGCTCAGCA ACCAAGGGAT TGTTCCTGTC AATCAATGGT
1381 TTATTGGAAG GTGGCCCACT ATGAGCCCTA GAAGAGTGTG AAAAGGAATG GCAATGGTGT
1441 TCACCATCGG CAGTGCCAGG GCAGCACTCA TTCATTGAT AAATGAATAT TTATTAGCTG


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1501 GTTGGAGAGC TAGAACCTGG AGAGCTAGAA CCTGGAGAAC TAGAACCTGG AGGGCTAGAA
1561 CCTGGAGAGG CTAGAACCAA GAAGGGCTAG AACCTGGAGG GGCTAGAACC TAGAGAAGCT
1621 AAAACCTGAG CTAGAAGCTG GAGGACTAGA ACCTGGAGGG CTGGAATCTG AAGGGCTAGA
1681 ACCTGGAGGG CTGGAATCTG GAGAGCTAGA ACCTGGAGGG CTAGAACCTG GAGGGCTAGA
1741 ACCTAGAAGG GCTAGAACCT GGAGGGCTGG AATCTGGAGA GCTAGAACCT GGAGGGCTAG
1801 AACCTGGAGG GCTAGAACCT AGAAGGGCTA GAACCTGGAG GGCTAGAACC TGGCAGGTTA
1861 GAACCTAGAA GGGCTAGAAC CTGGAGAGCC AGAACCTGGA GGGCTAGAAC CTGGAAGGGC
1921 TAGAACCTGT AGAGCTAGAA CATGGAGAGC TAGAACCCGG CAGGCTAGAA CCTGGCAAGC
1981 TAGAACCTGG AGGGAATGAA CCTGGAGGGC TAGAACCTGG AGAATGAGAA AAATTTACAT
2041 GGCAAAGAGC CCATAAATCC TGACCAATCC AACTCTGAAT TTTAAAGCAA AAGCGTGAAA
2101 AAAAAGATTG CCTCCTTACC CCAACCCAC TCTTTTTTCC CACCACCAC TCTCCTCTGC
2161 CTCAGTAAGT ATCTGGAGGA AGAAAACAGG TGAAGAAGA AGTAAAAACC ATTTAGTATT
2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAAGG GAAAGAGGC
2281 TGTGTTTTGT CACACAGGGC AGTCATTGAG CACCAGAGCA CGTGATGGTC TGAGACTCTC
2341 TTAGGAGCAG AGCTCTGCCG CAATGGCCAT GTGGGGATCC ACACCTGGTC TGAGGGGCAA
2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
2461 TGTCTGTGTA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATT CACATCCAAA
2521 CGAGAAAATC ATGTAAACAT GTGTCTTTTC TGTAGAGCAT AATAAATGGA TGAGGTTTTT
2581 GCAAAAAAAA AAAAAAAA

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(2) INFORMATION FOR SEQ ID NO:2445:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7321 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2445:

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1 AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTTTAA ATGAATGCTT TAAGCCGGGT
61 GCAGTGCCCTC ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTTCG AGACCAACCT GGCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGGT GACAGAGAGA GACTCCGTCT CAAAAAAGG AAAAAAAGG AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCAGTGT GAATTTTCT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCTT TTCCCTCTGC AAATCCCTG CCTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTTGCAAGT TCCAAACCTC GATCCCAGT
541 GTGCTTAGGG GTTCTTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCTCG
601 TTTACCAACT CAGCTTTTTG TTTTAGTGTG TTTGAATTCC CTGAACTGAC CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAAGCTGG GATGTGGCAG ATCCGTGGCT ACATTCATGC ACACACACAC
781 ACCCACATAC CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTTCACCA CCCTTCTTAG ACAGGGGTCA CTTGGTATCC TGGAGAGAGT
901 GTGAAGTCCG GGAATGGAAA GAGGGGGGAT TAAGCCCAAC CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCGCCTTGT TTACCTCTC TGTGAGGCAA GCACAGAGCC
1021 CATGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTGAG AGCAAGGGTC
1081 GGAATGGAA GGGCCTTGGG AAAAAAGGCC CTTTCAACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTATTG GTAAGCCAAG CCCGAAGGGA CTGGAAATAC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCCTGT CTCCATCACA
1261 GTGCTCCAGT CCAGACCCCT CCTCTGAGCT CCAGACCCCT CTGGACCCAA CCAGCCCTAT
1321 GGGGTGCGAT CCCACCTGC CTGGAATTCT CCAAAGAAC TCCCTTTTAA CAGTTCCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCTCT AAATCAGCCC CCCATCTCTG
1441 CCTTTGCAGG AGATGGAAGC CATGACACCT GCCTCGCCCC TGTCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCATG TCAGGTTTAC CCTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTCTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATTC ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGCTCA
1741 CCTCAGTGT TCTCATCAAT AATCCACTCC CTTACAGGGC GCGTTTGGGA CCCCATGTTT
1801 TATGCTCTCA CAGGACCTTT TGCTTGATTT TTTACTGTAC TTAGGTCAGT TTGCAGTTAT
1861 TAAGTGACTG AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGCTCCTAGC CATTGTATAC
1921 CTAGCACCGC TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTTCTCC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCAGCCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCAG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAATGTTTC TCTCCCTGGA AGATATCAAT GTTCTGTCT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGCC TCTTTCAGGT GAGTCAAAGG GATTCTCTAG TTCACTAGTT AGGGGAGGTG
2221 GGCAGACACC CTGGAGAACT CCCTGGAAAG CTCAACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCAAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGCTC AGGGAGGAGA
2401 AGGGCACATT CCTGGTTGTT ATATGTTTCT ATCTATCCCA GATGAACTTG GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAAA GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC

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2521 CTTGGAAACA AAATATCTCC AACACATGGC TGACATTGGG TGGGAGATCA GAACACCCTA
2581 AAGAGAGAAT TTAAGGGGAG GGGGAGGAGG ACCTGAGCCA GAGTAGAAGC AGAGGATAGG
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAACCT
2701 CTCCACCCTG CTGCAGGTGC TGCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGTCTTGC
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAGT TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGGACC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAAGGAGG CTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGCTTAT
3121 CTCTGTTCCA AGATGTCTGG GGCCTTGGTT GGAAGATTCA AAGGCTAGGA AACCAGGAGC
3181 CACCAAAAGC GTAACCTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCACCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA CCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAAGT CCAGCCCACG TCCAGGAGAA GAGGAAGCAG ATTCTCTCTT
3421 TTGAAATGAA GAATATCAAG TAATTCGGGG GGCATATGAA AGCCACCACA CACCACAGGG
3481 ATCTTTTATAG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAG
3541 CCTCACTTCC TTAGCACCCA GTGAAGACCA CGCTTACTCC CTCACCTAAC CTCTTGCTAC
3601 TTCCCACTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA GACCTTCCCC
3661 AGTTCGTGTC CTCTGCTCAG GCTGTTCCCC CTGCTGGTC CACTTGTCTT CCTTCTTGTG
3721 CGGTCAAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACCTCCA ACCCCTTACC
3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCCCT GCTCCCTCCA GGGCACCCTC
3841 CACCCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAA ACATTTAAAG
3961 GATAGAAGCA TTGATTTGTG GGTCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
4021 TAGAAGCAAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCGT
4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
4141 CCCTTTTCTT TCTCTCACC ACAGCACAGG GCACTGGGAA AATGCCCAAT GAGTCTTGCC
4201 TCTGGGTTGT GCTTTGGACT TTTTCTGCTG TCTCGCATCC ACTCTTCAAC TTGAATGTTG
4261 CAACAGCCAT GAAAAAGAA ATGCAAGCG ATTCAAGATG AGAGCAATAC CCTACTCCAA
4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGCTAGGA
4381 TTGGAACTCA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCTAAGAA TGAAAGAGGA
4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGCG TGGGGCATT
4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGGTA GTGGTTTTAA CTGCCATGTT
4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACCT CCCCAGCGTG ACACGGCTTA
4741 TAAAGTAAGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAG TCCCCACCCC
4801 CCTCGCCATC TGTATCTTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
4861 CACGATGCCA CAGACTGTCC AGGAAGACAG AAACCTAGGCA GATGGGCTGG CCATGGTCTC
4921 CAAGCCAGAC TGGAATCTCC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAATTAA
4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCCG
5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TTCAAGGAGG TCAAGGGTCC
5101 AACACTTGAG ATTGTTAGTG CTGTTGGTGG ATACTGGCCA AGGAAATATC CCAGTGGAGC
5161 CTCGAGATGA AGAACATGAG GCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAAG
5221 ACCCAGGGGA GTCAGGTGCA CTGGAGCGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
5281 CGGCTTCTCC TTGTCTTGGC TGGTTGTCTT TAACCCCTGT CTCCTTCTGG ACCAGTTTTT
5341 GTCTTCCCT TGTGACCGCT GAGGGGTAAC AGCCTCTTTC CACTTTCTTT CAGCGCCGAC
5401 ATGCTCAATG TCACCTTGCA AGGGCCCACT CTTAACGGGA CCTTGCCCCA GAGCAATGTC
5461 CCCAAGTGG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCCTTCTT CTGGGTGCTG
5521 TTCGTGCTGG CCACCCTAGA GAACATCTTT GTCCTCAGCG TCTTCTGCTT GCACAAGAGC
5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCCTGGCC
5641 TGCGGGCTGC CTTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTTC
5761 CTGATGCTGG TGAGCATCGA CCGCTACCTG GCCCTGGTGA AAACCATGTC CATGGGCCGG
5821 ATGCGCGGCG TGCGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
5881 CTGAGCTCAC CCATGCTGGT GTTCCGGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
5941 GTCACCGCTT GTGTCTCAG CTACCCATCC CTCATCTGGG AAGTGTTTAC CAACATGCTC
6001 CTGAATGTCG TGGGCTTCTT GCTGCCCCG AGTGTCTATC CTTTCTGCAC GATGCAGATC
6061 ATGCAGGTGC TGCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
6121 GCCACGGTGC TAGTCTCTGG TGTGCTGCTG CTATTCTATC TCTGCTGGCT GCCCTTCCAG
6181 ATCAGCACCT TCCTGGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
6241 CGCATCATCG ATGTAATCAC ACAGATCGCC TCCTTCATGG CCTACAGCAA CAGCTGCCTC
6301 AACCCACTGG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
6361 CAGGGAGTGT GCCAGAAAGG GGCTGCAAG TCAGAACCCA TTCAGATGGA GAACCTCATG
6421 GGCACACTGC GGACCTCCAT CTCCGTGGAA CGCCAGATTC ACAAACCTGCA GGACTGGGCA
6481 GGGAGCAGAC AGTGAGCAAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATTGAGGG
6541 ACAGTTGCTT TTCAGCATGG GCCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTTGGG

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6601 AAATGAGTTG ATGTCTCCGG TAAACACCG GAGACTAATT CCTGCCCTGC CCAATTTTGC
6661 AGGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAAATCACA
6721 ACAGCATTAC TGTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
6781 GAGGAGGCCT GGGGGCAGGG AGAGGAGTGA CTGAGCTTCC CTCCCGTGTG TTCTCCGTCC
6841 CTGCCCCAGC AAGACAATT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
6901 CTGAGTGCAC AAGTGAATTG TTGCCCTGGG TTTCTTTAAT CTATTCAGCT AGAAGTTTGA
6961 AGGACAATTT CTTGCATTAA TAAAGGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
7081 CAATAAGCAC ATATTGAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG
7141 AAGAAAGAGA AGGAGCCATC TCCATCTTGA AGGAACTCAA AGACTCAAGT GGGAAACGACT
7201 GGGCACTGCC ACCACCAGAA AGCTGTTTGA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA
7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTCACCAA TACTATTGCA CACCACCTGT
7321 CCTGCCTC

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(2) INFORMATION FOR SEQ ID NO:2446:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2221 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2446:

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1 CTGCAGAAAA CAGCCTGAGC TCCACCTCGG CTTCTCCTTG CCCTGGCTGG TTGTCCTTAA
61 CCCCTGTCTC CTTCTGGACC AGTTTTTGTG CTTCCCTTGT GACCCTGAGG GGTAACAGCC
121 TCTTTTCCAC TTTCTTTCAG CGCCGACATG CTCAATGTCA CCTTGCAAGG GCCCCTCTT
181 AACGGGACCT TTGCCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
241 ATCCAGCCCC CTTCTCTCTG GGTGCTGTTC GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
301 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
361 CTGGCCGCGC CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
421 AACAACTTCG ACTGGCTCTT TGGGGAGAGC CTCTGCCGCG TGGTGAATGC CATTATCTCC
481 ATGAACCTGT ACAGCAGCAT CTGTTTCTCG ATGCTGGTGA GCATCGACCG CTACCTGGCC
541 CTGGTGAAAA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
601 TTGGTGATCT GGGGGTGATC GCTGCTCCTG AGCTCACCCA TGCTGGTGTG CCGGACCATG
661 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTGTGT TCATCAGCTA CCCATCCCTC
721 ATCTGGGAAG TGTTACCAA CATGCTCCTG AATGTCGTGG GCTTCCTGCT GCCCTGAGT
781 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
841 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT CTGCTGCTA
901 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
961 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
1021 TTCATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1081 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
1141 GAACCCATTC AGATGGAGAA CTCCATGGGC AACTGCGGA CCTCCATCTC CGTGGAAACGC
1201 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAACGC CAGCAGGGCT
1261 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
1321 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCGGAG
1381 ACTAATTCTT GNCCTGCCCA ATTTTGAGG GAGCATGGCT GTGAGGATGG GGTGAATCA
1441 CGCACAGCCA AGGACTCCAA AATCACACA GCATTACTGT TCTTATTTGC TGCCACACCT
1501 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGCAGGGAGA GGAGTGACTG
1561 AGCTTCCCTC CCGTGTGTTT TCCGTCCCTG CCCAGCAAG ACAACTTAGA TCTCCAGGAG
1621 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGACAAAG TGAGTTGTTG CCCTGGGTTT
1681 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
1741 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCTT CACTGATGGA
1801 CAAGGGAGGT CTGTGCCAAA GAAGAATCCA ATAAGCACAT ATTGAGCACT TGCTGTATAT
1861 GCAGTATTGA GCACTGTAGG CAAGAGGGAA GAAAGAGAAG GAGCCATCTC CATCTTGAAG
1921 GAATCAAGAG ACTCAAGTGG GAACGACTGG CACTGCCACC ACCAGAAAGC TGTTCCAGCA
1981 GACGGTCGAG CAGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCTA
2041 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCCTC TTCTGTAACA
2101 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
2161 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAAGT GGATATGTTT ACTATAAGGA
2221 AAAGACACTG AGGTCTAGA

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(2) INFORMATION FOR SEQ ID NO:2447:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2461 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2447:

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1 TGATCCTATC ACAACCTGAG AGTAGTTTTT ACTCCATTTA CAGGTGAGGT CATTGTGGTT
61 CAAGGACGTT AAGTAACTTC CCCAGCTCAC ACGGCTTATA AGTAAGGCAG CCAGGATGTG

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121 AACCCAGTAG GACTATCTGG CTGCAAAGTC CCCACCCTCC CTCGCCATCT GTATCCTCCA
181 ATCATCTTCA GTGCTTTGCT GATAGAAGGT ACGGAAATAC GATGCCACAG ACTGTCAGG
241 AAGACAGAAA CTAGGCAGAT GGGCTGGCCA TGGTCTCCAA GCCAGACTGG AATCTCCAGG
301 TCTGGAATGA TATCATTTTT CTCTTTTAAAT AAATTAAGTC ACCCACCACA CGGCTTTGAG
361 AGGCTCAAAG GTGACCAACT CCCTTGGGAG GGGCCCGGTT GATAAGGAAG GAATGTGAAT
421 CCTCCCATCA CGGAAGCTTC AAGGAGGTCA AGGGTCCAAC ACTTGAGATT GTTAGTGCTG
481 TTGGTGGATA CTGCAGAATA TCCAGTGGAG CCTCAGATGA AGAACATGAG GCGCCGTTTA
541 GATCCAAGGA TCAGAGGGGG CTCTGTAAAG CCCAGGGGAG TCAGGTGCAC TGGAGCGCGG
601 GCTGCAGAAA ACAGCCTGAG CTCCACCTCG GCTTCTCCTT GCCCTGGCTG GTTGTCTTCA
661 ACCCTGTCT CCTTCTGGAC CAGTTTTTGT CCTTCCCTTG TGACCTGAGG GGTAAACAGCC
721 TCTTTTCCAC TTTCTTTTCT CGCCGACATG CTCAATGTCA CCTTGCAAGG GCCCACTCTT
781 AACGGGACCT TGCCCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GGTCAACACC
841 ATCCAGCCCC CCTTCTCTG GGTGCTGTTT GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
901 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
961 CTGGCCGCGC CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
1021 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCCGG TGGTGAATGC CATTATCTCC
1081 ATGAACCTGT ACAGCAGCAT CTGTTTCTCT ATGCTGGTGA GCATCGACCG CTACCTGGCC
1141 CTGGTGAAAA CCATGTCCAT GGGCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
1201 TTGGTGATCT GGGGGTGTAC GCTGCTCTG AGCTCACCCA TGCTGGTGT CCGGACCATG
1261 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTG TCATCAGCTA CCCATCCCTC
1321 ATCTGGGAAG TGTTACCAA CATGCTCCTG AATGTCGTGG GCTTCTCTG GCGCCTGAGT
1381 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
1441 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
1501 TTATCATCTT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
1561 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
1621 TTATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1681 TTCCGAAAGA AGTCTTGGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
1741 GAACCCATTC AGATGGAGAA CTCCATGGGC AACTGCGGA CCTCCATCTC CGTGGAAACG
1801 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
1861 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCT CAGGAATGCC
1921 AAGGAGACAT CTATGCACGA CTTTGGGAAA TGAGTGTGA TGTCTCCGGT AAAACACCGG
1981 AGACTAATTC CTGCCCTGCC CAATTTTCGA GGGAGCATGG CTGTGAGGAT GGGGTGAATC
2041 CACGCACAGC CAAGGACTCC AAAATCACAA CAGCATTACT GTTCTTATT GCTGCCACAC
2101 CTGAGCCAGC CTGCTCCTTC CCAGGAGTGG AGGAGGCCTG GGGGAGGGAG AGGAGTGACT
2161 GAGCTTCCCT CCCGTGTGTT CTCCGTCCCT GCGCCAGCAA GACAACCTAG ATCTCCAGGA
2221 GAACTGCCAT CCACGTTTGG TGCAATGGCT GAGTGCACAA GTGAGTTGTT GCCCTGGGTT
2281 TCTTTAATCT ATCAGTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
2341 CTGAGGGGTC CCTTGATAAC AACCTGGAGA CCAGGATTTT ATGGCTCCCC TCACTGATGG
2401 ACAAGGAGGT CTGTGCCAAA GAAGAATCAA TAAGCACATA TGAGCACTTC TGTATATCAG
2461 TATTGAGCAC TGTAGGCA

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(2) INFORMATION FOR SEQ ID NO:2448:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1201 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2448:

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1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCCAACC
61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCCAAC TCTTAACGGG
121 ACCTTTGCCC AGAGCAAATG CCCCCAAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
481 AAAACCATGT CCATGGGCGG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG GTTCCGGAC CATGAAGGAG
601 TACAGCGATG AGGGCCACAA CGTACCCGCT TGTGTATCA GCTACCCATC CCTCATCTGG
661 GAAGTGTTC CCAACATGCT CTGAATGTC GTGGGCTTCC TGCTGCCCCT GAGTGTCTATC
721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCTCTG TTGTGCTGCT GCTATTCTATC
841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCA GTCAGAACCC
1081 ATTCAGATGG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
1141 CACAACTGTC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

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(2) INFORMATION FOR SEQ ID NO:2449:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1201 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2449:

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1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCCAACC
61 ACGGCCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
121 ACCTTTGCCC AGAGCAAATG CCCCAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC GCGGTGGTGA ATGCCATTAT CTCCATGAAC
421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCTGGTG
481 AAAACCATGT CCATGGGCGG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG TGTCCGGAC CATGAAGGAG
601 TACAGCGATG AGGGCCACAA CGTCACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
661 GAAGTGTTC AACAATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCTC GAGTGTCTATC
721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCTTGG TTGTGCTGCT GCTATTCTATC
841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTA TCGTGGGCAA GCGCTTCCGA
1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
1081 ATTCAGATGG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGGA ACGCCAGATT
1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T
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(2) INFORMATION FOR SEQ ID NO:2450:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 241 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2450:

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1 GCCCTTCAA GATGAGCTGT TCCGCGCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
61 GGGGTGGGGA CGGTGGGGAC ATCAGGCTGC CCGCAGTAC CAGGGAGCGA CTGAAGTGCC
121 CATGCCGCTT GCTCCGAGA AGGTGGGTGC CGGGAGGGG CTGCTCCAGC CGCCTCACCT
181 CTGCTGGGAG GACAACTGT CCCAGCACAG AGGGAGGGAG GGAGGGCAGG CAGCGGGGAG
241 AAGTTTCCCT GTGTCGTGG GGAGTT
```

(2) INFORMATION FOR SEQ ID NO:2451:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 241 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2451:

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1 GCCCTTCAA GATGAGCTGT TCCGCGCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC
121 TGAAGTGCCC ATGCCGCTTG CTCCGAGAA GGTGGGTGCC GGGCAGGGG TGCTCCAGCC
181 GCCTCACCTC TGCTGGGAGG ACAAAGTGT CCAGCACAGA GGGAGGGAGG GAGGGCAGGC
241 AGCGGGGAGA AGTTTCCCTG TGTCGTGGG GAGTT
```

(2) INFORMATION FOR SEQ ID NO:2452:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1441 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2452:

```
1 GAGCTCTTCA ATATTTTACT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGCAGCCTGT CCATAGACCT CTGTCCTCCAA
121 CTGGCAAGTC AGGAACTCC AGATTAAGGA GCCCCAATGT GGTGAACAG CTAGGTGCAC
181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCATAAAC TGATCTGAGA CTCTGTTTCC
301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGTTT GTAGGCTTGT TATGAATCAA
361 GTCACAGGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCCT CTGCCCTCC TGTCTCTTCC
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421 CCAGATCCAC TGGGCCCACT CTTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGCTCCT ACCGTCTCAG CCCTGGGAGT
541 GTAAAGTGCT GCAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
661 GCGCAAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTCGCCC TTGGGAGCCG
721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCCTGCCC ACCTGGCCAC CCTCTGTTTA
781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAAACTC AGACACAAAA TAACCACCTC
841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGCG
901 TTCCCAGGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTTT GCCGTCCCAC GACTCCAACG
961 GGCAGCCGGG CCTACGCAAA CATGGAAATC TTCCAAGAGC CTCCTTGGCC CCCAGGGCTC
1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCCGGCCCCA CAGCCAGCCT
1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGGAAGT GCCCAGGAGG
1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCCGCCGCCA CTCCAGCTCT
1201 GGCTTCTGGG CTCCGAGGAG GGGTGGGGAC GTGGGTGACG GTGGGGACAT CAGGCTCCCC
1261 CGCAGTACCA GGGAGCGACT GAAGTGCCCA TGCCGCTTGC TCCGGAGAAG GTGGGTGCCG
1321 GGCAGGGGCT GCTCCAGCCG CCTCACCTCT GCTGGGAGGA CAAACTGTCC CAGCACAGAG
1381 GGAGGGAGGG AGGGCAGGCA GCGGGGAGAA GTTCCCTGT GTGCTGGGG AGTTGGGAAA
1441 AGTTCCCTTC CTTCCGGAGG GAGG

(2) INFORMATION FOR SEQ ID NO:2453:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2453:

1 CAGATTCAACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
61 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
121 AAGGAGACAT CTATGCACGA CCTTGGGAAA TGAGTTGATG TCTCCGGTAA AACACCCGAG
181 ACTAATTCCT GCCCTGCCCA ATTTTGCAAG GAGCATGGCT GTGAGGATGG GGTGAACCTA
241 CGCACAGCCA AGGACTCCA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
301 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGGAGGGAGA GGAGTGACTG
361 AGCTTCCCTC CCGTGTGTTT TCCGTCCCTG CCCCAGCAAG ACAACTTAGA TCTCCAGGAG
421 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGACACAAG TGAGTTGTTG CCCTGGGTTT
481 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTCTT GCATTAATAA AGGTTAAGCC
541 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCTT CACTGATGGA
601 CAAGGAGGTC TGTGCCAAAG AAGAATCCAA TAAGCACATA TTGAGCACTT GCTGTATATG
661 CAGTATTGAG CACTGTAGGC AAGACCCAAG AAAGAGAAGG AGCCATCTCC ATCTTGAAGG
721 AACTCAAAGA CTCAAGTGGG AACGACTGGG CACTGCCACC ACCAGAAAGC TGTCGACGA
781 GACGGTCGAG CAGGGTGCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAG CAAGGTTCCA
841 GCTCAACCAA TAACTATTGC ACAACCCT GTCCCTGCCT CAGTTCCCTT TTATGTAACA
901 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GACTTAGAA AAGCAAAGGG
961 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAAGT GGATATGTTT ACTATAAGGA
1021 AAAGACACTG AGGTCTAGAA ATAGCTCCGT GGAGCAGAAT CAGTATTGGG AGCCGGTGGC
1081 GGTGTGAAGC ACCAGTGTCT GGCACACAGT AGGTGCTCAT TGGCTCCCTT CCACCTGTCA
1141 TTCCCACCAC CTTGAGGCC CAACCGCCAC ACACACAGGA GCATTTGGAG AGAAGGCCAT
1201 GTCTTCAAAG TCTGATTGT GATGAGGCG AGGAAGATAT TTCTAATCGG TCTTGCCAG
1261 AAGGATCAG TGCTGAGACC CCCACACC AGCCGGTACC TGGGAAGGGG GAGAGTGCAG
1321 GCCTGCTCAG GGAAGTGTCC TGTCTACGA ACCAAGGGAT TGTTCCTGTC AATCAATGGT
1381 TTATTGGAAG GTGGCCAGT ATGAGCCCTA GAAGAGTGTG AAAAGGAATG GCAATGGTGT
1441 TCACCATCGG CAGTGCCAGG GCAGCACTCA TTCCTTGAT AAATGAATAT TTATTAGCTG
1501 GTTGAGAGC TAGAACCTGG AGAGCTAGAA CCTGGAGAAC TAGAACCTGG AGGCTAGAA
1561 CCTGGAGAGG CTAGAACCAA GAAGGGCTAG AACCTGGAGG GGCTAGAACC TAGAGAAGCT
1621 AAAACCTGAG CTAGAAGCTG GAGGACTAGA ACCTGGAGGG CTGGAATCTG AAGGGCTAGA
1681 ACCTGGAGGG CTGGAATCTG GAGAGCTAGA ACCTGGAGGG CTAGAACCTG GAGGGCTAGA
1741 ACCTAGAAGG GCTAGAACCT GGAGGGCTGG AATCTGGAGA GCTAGAACCT GGAGGGCTAG
1801 AACCTGGAGG GCTAGAACCT AGAAGGGCTA GAACCTGGAG GGCTAGAACC TGGCAGGTTA
1861 GAACCTAGAA GGGCTAGAAC CTGGAGAGCC AGAACCTGGA GGGCTAGAAC CTGGAAGGGC
1921 TAGAACCTGT AGAGCTAGAA CATGGAGAGC TAGAACCCGG CAGGCTAGAA CCTGGCAAGC
1981 TAGAACCTGG AGGGAATGAA CCTGGAGGGG TAGAACCTGG AGAATGAGAA AAATTTACAT
2041 GGCAAAGAGC CCATAAATCC TGACCAATCC AACTCTGAAT TTTAAAGCAA AAGCGTGAAA
2101 AAAAAGATTG CCTCCTTACC CCAACCCAC TCTTTTTTCC CACCACCAC TCTCCTCTGC
2161 CTCAGTAAGT ATCTGGAGGA AGAAAACAGG TGAAAGAAGA AGTAAAAACC ATTTAGTATT
2221 AGTATTAGAA TGAAGTCAAA CTGTGCCACA CATGGTGAAT GAAAAAATAA AAAAAGAGGC
2281 TGTGTTTTGT CACACAGGGC AGTCATTGAG CACCAGAGCA CGTGATGGTC TGAGACTCTC
2341 TTAGGAGCAG AGCTCTGCCG CAATGGCCAT GTGGGGATCC ACACCTGGTC TGAGGGGCAA
2401 CTGAGTCTGC GGGAGAAGAG CGGCCCTATG CATGGTGTAG ATGCCCTGAT AAAGAACATC
2461 TGTCTGTGA AAGACTCAAT GAGCTGTTAT GTTGTAACA GGAAGCATTT CACATCCAAA
2521 CGAGAAAATC ATGTAAACAT GTGCTTTTC TGTAGAGCAT AATAAATGGA TGAGGTTTTT

2581 GCAAAAAAAAAA AAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO:2454:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 7321 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2454:

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1 AAATGATAGA CCGTCAATAA TTTGTTAAAT GCTTTTAAAT ATGAATGCTT TAAGCCGGGT
61 GCAGTGCCTC ACATCTGTAA TCCCAGCACT TTGGAGCCGA GCGGGTGGAT TGTGTGAGGT
121 CAGGAGTTCG AGACCAACCT GGCCAACATG GCAAAACCTC ACTCTCTACC AAAAATACAA
181 AAATTAGCCA GGCATGGTGG CAGGCACCTG TGATCCCAGC TACTCAGGAG GCTGAGACAG
241 GAGAATCGCT TGAACCCGGG AGGCAAGGTT GCAGTGAGCC AAGATTACGC CATTGTACTC
301 CAGCCTGGCT CACACACAGA GACTCCGTCT CAAAAAATAA AAAAAAATAA AAAAAATTAC
361 GCTTCAAACA CATGATCTCT CACCACTGTT GAATTTTCTT TCTATGAGCC CAGGAGGGCC
421 TCTCAGAGAG GAAAGCTCCT AGGTCTTCCT TTCCCTCTGC AAACCTCCCTG CCTTGAAGGT
481 TCAGAAGGAC TGTGCGTGCT CGTTGCATCC TTGCAAGTG TCCAAACCTT GATCCCAGCT
541 GTGCTTAGGG GTTCCTGCAA ACCTTTTCCA GGTGTTAATT ACCTCCCACT TCATTTCTCTG
601 TTTACCAACT CAGCTTTTGT TTTTAGTGTG TTTGAATTCC CTGAAGTAC CGTTGTCTGA
661 TCTCCACCTC CCAACTGAAT TAGGGGAGCT GGGCTTCTGG AAACCCAGGT GCCGGGTGTT
721 GCAGAGTGGC TGAAAGCTGG GATGTGGCAG ATCCGTGGCT ACATTCATGC ACACACACAC
781 ACCCACAATC CCACACATGC ACACACACAC ACACACCCGC ACTCACACAC TTGGACATGC
841 ATAGACCACA GCTTTCCACA CCCTTCTTAG ACAGGGGTCA CTTGGTATCC TGGAGAGAGT
901 GTGAAGTCCCT GGAATGGAAA GAGGGGGGAT TAAGCCCCAC CTCTAGCCAT GGGACTGAGA
961 CAAGTCACCA CCAACCCATC TGCGCCTTGT TTACCTCTCT TGTGAGGCAA GCACAGAGCC
1021 CATGCCTGCC CCCCTGGATG GGAGTGATGT GAAACTTGAA GGGCGGTGAG AGCAAGGGTC
1081 GGAATGGAAA GGCCCTTGGG AAAAAAGGCC CTTTCAACTA GGGGCACAGA GGAGGCCCTG
1141 GGCTGAGAAC TTGACAGCAC CTTGTAATTG GTAAGCCAAG CCCGAAGGGA CTGGAAATAC
1201 TCAGATGTGT CTGTCTCCCT TATTAGGTTT AAAGTCCCTC AAGACCTCTG CTCCATCACA
1261 GTGCTCCAGT CCAGACCCCT CCTCTGAGCT CCAGACCCCTG CTGGACCCAA CCAGCCCTAT
1321 GGGGTGCGAT CCCACCTGCT CTGGAATTCT CCAAAGAACC TCCCCTTTAA CAGTTCCAGC
1381 CTTTAACAGT TCCAGTCTAA ACACATGACC TTTCTCCTCT AAATCAGCCC CCCATCTCTG
1441 CCTTTGCAGG AGATGGAAGC CATGACACCT GCCTCGCCCC TGCTCTCACC CCATCCATGT
1501 CCAATCAAGC ACTAGGCATG TCAGGTTTAC CCTCTAAACT CCTCTGGAAT CCAGTCTCTC
1561 AGTCTCCATC ATCCCAGGTC GAAGCTAATG GGCTAACTGG TCCTTGCTTC CACTCTACCC
1621 CCACTGCAGT CCTGACTTCC TGAGCAGCAG CCAGGGCCTA ATCGATATT ACACCAAGCG
1681 CCAACCTGAC TGAGATATCC TCCTGCACCA TCATCCCTCC ACCCTGTTTA GTTCTGCTCA
1741 CCCTCAGTGT TCTCATCAAT AATCCACTCC CCTCACAGGC GCGTTTGGGA CCCCATGTTC
1801 TATGCTCTCA CAGGACCTTT TGCTTGATTT TTCACTGTAC TTAGGTCAGT TTGCAGTTAT
1861 TAAGTGACTG AGCAATGTCT GGCTTCTCCA GTAGACTGTC AGCTCCTAGC CATTGTATAC
1921 CTAGCACCAG TGTGTGGGAG CACGTGACAA ACGTCCAGTG AGTCAGGGAC TCAGCAGTCT
1981 CCATTTCTCC GCCCTGCTGG AGAATGCGTG TATTTGGCAA TCCCCAGCCC CTGTGCCATC
2041 TAACCATCTT TTCTTCTCTG TTCAGCCAGG GTGTGGCCTC ACTCACATCC CACTCTGAGT
2101 CCAAATGTTT TCTCCCTGGA AGATATCAAT GTTTCTGTCT GTTCGTGAGG ACTCCGTGCC
2161 CACCACGGCC TCTTTCAGGT GAGTCAAAGG GATTCCTCAG TTCACTAGTT AGGGGAGGTG
2221 GGCAGACACC CTGGAGAACT CCCTGGAAAG CTCAACTCTC ATGCCCCGGA CAACAGTTGA
2281 AGGAACCATG GTGATGTTAA GCCCCAAGAC AAAACCTCTC AGGTGTCCAA GTCCCTGTTG
2341 GAATCTTGGG AGCAGAGGGA ATGTTCTGTG GTCTAGAGGA AGAGGGGGTC AGGGAGGAGA
2401 AGGGCACATT CCTGGTTGTT ATATGTTTCT ATCTATCCCA GATGAACCTG GAAGTGAAGG
2461 GAAGAGAGTT AAACATTAAA GTAAATACCC AGTGGATCAG ACAGCAATGT GCCAGATTGC
2521 CTTGGAACA AAATATCTCC AACACATGGC TGACATTGTT TGGGAGATCA GAACACCTTA
2581 AAGAGAGAAT TTAAGGGGAG GGGGAGGAGG ACCTGAGCCA GAGTAGAAGC AGAGGATAGG
2641 GAGATCTGTT CTTGGGGACA GCATTTGCAA GAAACAAGGC TGAGGGGTCC ACTCCAACCT
2701 CTCCACCCTG CTGCAGGTGC TGCTATGAT GAAGATGAGC AGATGGCCAT CTCAGCTGGG
2761 GCCACAGTGC ACTGGACCTA TAGTTTCCAA TTCCGCACTC AGCAGGCATC TTTCTGATGA
2821 TCCGATGGCT TCTCAGAGCC AGGGATGGGC CAGGATCCAT CCCCTTGGCT ACTGTCTTGC
2881 TGAGAAATTT ATAAGCAGCA TCTGGTGCTA TACTTTGGTC TCTAGTGAGT TAGCTCATGA
2941 AAGATGATAG ACTCTCCAAG CCAGGGGTAT GCAGGAAATG GGTTTTCTGT AGCTACAGAA
3001 ATGGGGTTGA GGGTTGGACC AAGGGACTAC CCAGGGGAAG TCTTACCTTC AGAGGACTCT
3061 GGAAAGGAGG CTGCAAGTTT TCATGGGTCA AGAATTCAGA GCCCAGTAGA GACAGCTTAT
3121 CTCTGTTCCA AGATGTCTGG GGCCTTGGTT GGAAGATTCA AAGGCTAGGA AACCAGGAGC
3181 CACCAAAAGC GTAAGTGGG CCAGAGGATC CACTTTCAAG GTGGCAAGTT GGTTCCTCCC
3241 ATGTGGCTGC TTGAGTATCC TCACATGGCG GCTCACATCC TTCCAAGTAA GCAATGCAAA
3301 AGGCCAAGAA AGATGCTGCA AAGATGTTAT GACCTAGCCT CAGAAATCAC ACACCATCCC
3361 TGCCACCATT AGTAAGAACT CCAGCCACG TCCAGGAGAA GAGGAAGCAG ATTCTCTCTT
3421 TTGAAATGAA GAATATCAAG TAATTGCGGG GGCATATGAA AGCCACCACA CACCACAGGG
3481 ATCTTTTTAG AGCATACTTC TTATACCATC ACTGTAGTTC CTTAAGACTC AGGGGCAAG
3541 CCTCACTTCC TTAGCACCCA GTGAAGACCA CGCTTACTCC CTCACTCAAC CTCTTGCTAC
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3601 TTCCACCTC TCCTGTCCAA CATCTAGTGT CACTTTCCAG AACATACCAA CAGCTTCCCC
3661 AGTTCTGTGC CTCTGCTCAG GCTGTTCCCC CTGCCTGGTC CACTTGTCTT CCTTCTTGTC
3721 CGGTCAAAT GCTTCTTATC CTTCAAGACC CAGCTCTAGA GTCACCTCCA ACCCCTTACC
3781 CACCAGCCCC CTCTCCAAGT CTGTGTCCCA CAACCCCCCT GCTCCCTCCA GGGCACCCTC
3841 CACCTCTGG GCCACAGTTG TCAGGAGTCA GGCAGGGCAG GGGCCGGGTG GTGTCTTCTT
3901 TGTGTTCTTG CACTCAGGGC AGAGCTCAGC ACAGAGCAGA CGCTCAAAA ACATTTAAAG
3961 GATAGAAGCA TTGATTTGTG GGTCCCCCAG TCTGGCTCCA GGATGCCAGC CAGCTGCTCC
4021 TAGAAGCAA CGGACTTTTC CTGGGAAATC CCAGAGGTGA TGATCAGTAA TCTCTCCCGT
4081 GACTCGTAGT TCAGCTCTTC CTCCATGAGC CTGACTATCA GTGGACCTTC CAGAAAGAGC
4141 CCCTTTTCTT TCTCTCACCC ACAGCAGAGG GCACTGGGAA AATGCCCAAT GAGTCCTGCC
4201 TCTGGGTTGT GCTTTGGACT TTTAGTGTG TCTCGCATCC ACTCTTCAAC TTGAATGTTG
4261 CAACAGCCAT GAAAAAGAA ATGCAAGCG ATTCAAGATG AGAGCAATAC CCTACTCCAA
4321 AGAAGGCAAC ATAGAAGCTC AGAGAGATCA AGCAATTTGC CCAAGACCAC ACAGTAGGA
4381 GTGGAATCA TGGCTGTCCA AGCCCCATGC CTCTGCTGAA GGTAGAGATG AATTACAGCA
4441 ACAAGTCTAG AAAGGTGCCT GCCCTATGGT CTGTGAGTCT TGCCTAAGAA TGAAAGAGGA
4501 GCCAGTGGGT TAAAGATGAG GTCACCAACA ACGGTGGTGT TGGAGTTTAC CACTGATAAT
4561 AAGGGTGCAA AATGTAAATT ACTAATGTTT ATTGAGCCTA GTGCAGTGCG TGGGGCATT
4621 TGCACATTGT CTCTGATCCC TATGACAACC CTGAGAGSTA GTGTTTAA CTGCCATGTT
4681 ACAGGTGAGG TCATTGTGGT TCAAGGACGT TAAGTAACCT CCCAGCGTG ACACGGCTTA
4741 TAAGTAAGGC AGCCAGGATG TGAACCCAGT AGGACTATCT GGCTGCAAAG TCCCCACCCC
4801 CCTCGCCATC TGTATCCTCC AATCACTTCA GTGCTTTGCT GCATAGAAGG TAACGGAAAT
4861 CACGATGCCA CAGACTGTCC AGGAAGACAG AACTAGGCA GATGGGCTGG CCATGGTCTC
4921 CAAGCCAGAC TGAATCTCC AGGTCTGGAA TGATATCATT TTTCTCTTTT AATAAATTAA
4981 CTCACCCACC ACACGGCTTT GAGAGGCTCA AAGTTGACCA ACTCCCTTGG GAGGGCCCCG
5041 GTTGATAAGG AAGGAACGTG AATCCTCCCA TCACGGAAGC TTCAAGGAGG TCAAGGTGCC
5101 AACACTTGAG ATTGTTAGTG CTGTTGGTGG ATACTGGCCA AGGAAATATC CCAGTGAGC
5161 CTCGAGATGA AGAATCATGAG GCCCCGTTT AGAACCAAGG ATCAGAGGGG GCTCTGTAAG
5221 ACCCAGGGGA GTCAGGTGCA CTGGAGGCG GGCATGCAGA AAACAGCCTG AGCTCCACCT
5281 CGGCTTCTCC TTGTCCTGGC TGGTTGTCCT TAACCCCTGT CTCCTTCTGG ACCAGTTTTT
5341 GTCCTTCCCT TGTGACCGCT GAGGGGTAAC AGCCTCTTTC CACTTCTTTT CAGCGCCGAC
5401 ATGCTCAATG TCACCTTGA AGGGCCACT CTTAACGGGA CCTTTGCCA GAGCAAATGC
5461 CCCAAGTGG AGTGGCTGGG CTGGCTCAAC ACCATCCAGC CCCCTTCTG CTGGGTGCTG
5521 TTCGTGCTGG CCACCCTAGA GAACATCTTT GTCCTCAGCG TCTTCTGCCT GCACAAGAGC
5581 AGCTGCACGG TGGCAGAGAT CTACCTGGGG AACCTGGCCG CAGCAGACCT GATCCTGGCC
5641 TGCGGGCTGC CTTTCTGGGC CATCACCATC TCCAACAAC TCGACTGGCT CTTTGGGGAG
5701 ACGCTCTGCC GCGTGGTGAA TGCCATTATC TCCATGAACC TGTACAGCAG CATCTGTTT
5761 CTGATGCTGG TGAGCATCGA CCGTACCTG GCCCTGGTGA AAACCATGTC CATGGGCGG
5821 ATGCGCGGCG TGCGCTGGGC CAAGCTCTAC AGCTTGGTGA TCTGGGGGTG TACGCTGCTC
5881 CTGAGCTCAC CCATGCTGGT GTTCCGGACC ATGAAGGAGT ACAGCGATGA GGGCCACAAC
5941 GTCACCGCTT GTGTCATCAG CTACCCATCC CTCATCTGGG AAGTGTTCAC CAACATGCTC
6001 CTGAATGTCG TGGGCTTCCT GCTCCCCCTG AGTGTATCA CTTTCTGCAC GATGCAGATC
6061 ATGCAGGTGC TGCGGAACAA CGAGATGCAG AAGTTCAAGG AGATCCAGAC GGAGAGGAGG
6121 GCCACGGTGC TAGTCTTGGT TGTGCTGCTG CTATTTCATCA TCTGCTGGCT GCCCTTCCAG
6181 ATCAGCACCT TCCTGGATAC GCTGCATCGC CTCGGCATCC TCTCCAGCTG CCAGGACGAG
6241 CGCATCATCG ATGTAATCAC ACAGATCGCC TCCTTCATGG CCTACAGCAA CAGCTGCCTC
6301 AACCCACTGG TGTACGTGAT CGTGGGCAAG CGCTTCCGAA AGAAGTCTTG GGAGGTGTAC
6361 CAGGGAGTGT GCCAGAAAGG GGGCTGCAGG TCAGAACCCA TTCAGATGGA GAACTCCATG
6421 GGCACACTGC GGACCTCCAT CTCCTGGGAA CGCCAGATT CAAAACTGCA GGACTGGGCA
6481 GGGAGCAGAC AGTGAGCAA CGCCAGCAGG GCTGCTGTGA ATTTGTGTAA GGATTGAGGG
6541 ACAGTTGCTT TTCAGATGG GCCAGGAAT GCCAAGGAGA CATCTATGCA CGACCTTGGG
6601 AAATGAGTTG ATGTCTCCGG TAAAACACCG GAGACTAATT CCGCCCTGTC CCAATTTTGC
6661 AGGGAGCATG GCTGTGAGGA TGGGGTGAAC TCACGCACAG CCAAGGACTC CAAAATCACA
6721 ACAGCATTAC TGTCTTATT TGCTGCCACA CCTGAGCCAG CCTGCTCCTT CCCAGGAGTG
6781 GAGGAGGCTT GGGGGCAGGG AGAGGAGTGA CTGAGCTTCC CTCCCGTGTG TTCTCCGTCC
6841 CTGCCCCAGC AAGACAACCT AGATCTCCAG GAGAACTGCC ATCCAGCTTT GGTGCAATGG
6901 CTGAGTGAC AAGTGAGTTG TTGCCCTGGG TTTCTTTAAT CTATTAGCT AGAAGTTTGA
6961 AGGACAATTT CTTGCATTAA TAAAGTTAA GCCCTGAGGG GTCCCTGATA ACAACCTGGA
7021 GACCAGGATT TTATGGCTCC CCTCACTGAT GGACAAGGAG GTCTGTGCCA AAGAAGAATC
7081 CAATAAGCAC ATATTGAGCA CTTGCTGTAT ATGCAGTATT GAGCACTGTA GGCAAGAGGG
7141 AAGAAAGAGA AGGAGCCATC TCATCTTGA AGGAACTCAA AGACTCAAGT GGGAACGACT
7201 GGGCACTGCC ACCACCAGAA AGCTGTTTGA TGAGACGGTC GAGCAGGGTG CTGTGGGTGA
7261 TATGGACAGC AGAAGGGGGA GCCAGGTTCC AGCTCACCAA TACTATTGCA CACCACCTGT
7321 CCTGCCTC

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(2) INFORMATION FOR SEQ ID NO:2455:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2221 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2455:

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1 CTGCAGAAAA CAGCCTGAGC TCCACCTCGG CTTCTCCTTG CCCTGGCTGG TTGTCCTTAA
61 CCCCTGTCTC CTTCTGGACC AGTTTTTGTC CTTCCCTTGT GACCCTGAGG GGTAACAGCC
121 TCTTTTCCAC TTTCTTTCAG CGCCGACATG CTCAATGTCA CTTTGCAAGG GCCCACTCTT
181 AACGGGACCT TTGCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
241 ATCCAGCCCC CTTCTCTCTG GGTGCTGTTC GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
301 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
361 CTGGCCGAG CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
421 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCCGG TGGTGAATGC CATTATCTCC
481 ATGAACCTGT ACAGCAGCAT CTGTTTCTCTG ATGCTGGTGA GCATCGACCG CTACCTGGCC
541 CTGGTGAATA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
601 TTGGTGATCT GGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTT CCGGACCATG
661 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTG TCATCAGCTA CCCATCCCTC
721 ATCTGGGAAG TGTTACCAA CATGCTCCTG AATGCTGTGG GCTTCTGTCT GCCCTGAGT
781 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAG
841 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
901 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
961 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCACACA GATCGCCTCC
1021 TTCATGGCCT ACAGCAACAG CTGCCTCAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1081 TTCCGAAAGA AGTCTTGGA GGTGTACCAG GGAATGTGCC AGAAAGGGG CTGCAGGTCA
1141 GAACCCATTC AGATGGAGAA CTCCATGGGC AACTGCGGA CCTCCATCTC CGTGGAACGC
1201 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
1261 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
1321 AAGGAGACAT CTATGCAGA CCTTGGGAAA TGAGTTGATG TCTCCGTAA AACACCGGAG
1381 ACTAATTCCT GNCCTGCCA ATTTTGAGG GAGCATGGCT GTGAGGATGG GGTGAACCTA
1441 CGCACAGCCA AGGACTCCAA AATCACAACA GCATTACTGT TCTTATTTGC TGCCACACCT
1501 GAGCCAGCCT GCTCCTTCCC AGGAGTGGAG GAGGCCTGGG GGCAGGGAGA GGAGTACTG
1561 AGCTTCCCTC CCGTGTGTTC TCCGTCCCTG CCCAGCAAG ACAACTTAGA TCTCCAGGAG
1621 AACTGCCATC CAGCTTTGGT GCAATGGCTG AGTGCACAAG TGAGTTGTTG CCCTGGGTTT
1681 CTTTAATCTA TTCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTAAAGCC
1741 CTGAGGGGTC CCTGATAACA ACCTGGAGAC CAGGATTTTA TGGCTCCCCT CACTGATGGA
1801 CAAGGGAGGT CTGTGCCAAA GAAGAATCCA ATAAGCATAT ATTGAGCACT TGCTGTATAT
1861 GCAGTATTGA GCACTGTAGG CAAGAGGGAA GAAAGAGAAG GAGCCATCTC CATCTTGAAG
1921 GAACTCAAAG ACTCAAGTGG GAACGACTGG CACTGCCACC ACCAGAAAGC TGTTCCAGCA
1981 GACGGTTCGAG CAGGGTGTCTG TGGGTGATAT GGACAGCAGA AGGGGGAGAC CAAGGTTCCA
2041 GCTCAACCAA TAACTATTGC ACAACCACCT GTCCCTGCCT CAGTTCCCTC TTCTGTAACA
2101 TGAAGTCGTT GTGAGGGTTA AAGGCAGTAA CAGGTATAAA GTACTTAGAA AAGCAAAGGG
2161 TGCTACGTAC ATGTGAGGCA TCATTACGCA GACGTAACCTG GGATATGTTT ACTATAAGGA
2221 AAAGACACTG AGGTCTAGA

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(2) INFORMATION FOR SEQ ID NO:2456:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2461 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2456:

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1 TGATCCTATC ACAACCTGAG AGTAGTTTTT ACTCCATTTA CAGGTGAGGT CATTGTGGTT
61 CAAGGACGTT AAGTAACTTC CCCAGCTCAC ACGGCTTATA AGTAAGGCAG CCAGGATGTG
121 AACCCAGTAG GACTATCTGG CTGCAAAGTC CCCACCCTCC CTCGCCATCT GTATCCTCCA
181 ATCATCTTCA GTGCTTTGCT GATAGAAGGT ACGGAAATAC GATGCCACAG ACTGTCCAGG
241 AAGACAGAAA CTAGGCAGAT GGGCTGGCCA TGGTCTCCAA GCCAGACTGG AATCTCCAGG
301 TCTGGAATGA TATCATTTTT CTCTTTTAAT AAATTAACCT ACCCACCACA CGGCTTTGAG
361 AGGCTCAAAG GTGACCAACT CCCTTGGGAG GGCCCCGTT GATAAGGAAG GAATGTGAAT
421 CCTCCCATCA CGGAAGCTTC AAGGAGGTCA AGGGTCCAAC ACTTGAGATT GTTAGTGCTG
481 TTGGTGGATA CTGCAGAATA TCCAGTGGAG CCTCAGATGA AGAACATGAG GCCCCGTTTA
541 GATCCAAGGA TCAGAGGGGG CTCTGTAAGA CCCAGGGGAG TCAGGTGCAC TGGAGCGCGG
601 GCTGCAGAAA ACAGCCTGAG CTCCACCTCG GCTTCTCCTT GCCCTGGCTG GTTGTCTCTA
661 ACCCCTGTCT CCTTCTGGAC CAGTTTTTGT CTTCCCTTG TGACCTGAGG GGTAACAGCC
721 TCTTTTCCAC TTTCTTTCAG CGCCGACATG CTCAATGTCA CTTTGCAAGG GCCCACTCTT
781 AACGGGACCT TTGCCAGAG CAAATGCCCC CAAGTGGAGT GGCTGGGCTG GCTCAACACC
841 ATCCAGCCCC CTTCTCTCTG GGTGCTGTTC GTGCTGGCCA CCCTAGAGAA CATCTTTGTC
901 CTCAGCGTCT TCTGCCTGCA CAAGAGCAGC TGCACGGTGG CAGAGATCTA CCTGGGGAAC
961 CTGGCCGAG CAGACCTGAT CCTGGCCTGC GGGCTGCCCT TCTGGGCCAT CACCATCTCC
1021 AACAACTTCG ACTGGCTCTT TGGGGAGACG CTCTGCCCGG TGGTGAATGC CATTATCTCC
1081 ATGAACCTGT ACAGCAGCAT CTGTTTCTCTG ATGCTGGTGA GCATCGACCG CTACCTGGCC
1141 CTGGTGAATA CCATGTCCAT GGGCCGGATG CGCGGCGTGC GCTGGGCCAA GCTCTACAGC
1201 TTGGTGATCT GGGGGTGTAC GCTGCTCCTG AGCTCACCCA TGCTGGTGTT CCGGACCATG

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1261 AAGGAGTACA GCGATGAGGG CCACAACGTC ACCGCTTGTG TCATCAGCTA CCCATCCCTC
1321 ATCTGGGAAG TGTTCACCAA CATGCTCTCG AATGTCGTGG GCTTCCTGCT GCCCCTGAGT
1381 GTCATCACCT TCTGCACGAT GCAGATCATG CAGGTGCTGC GGAACAACGA GATGCAGAAG
1441 TTCAAGGAGA TCCAGACGGA GAGGAGGGCC ACGGTGCTAG TCCTGGTTGT GCTGCTGCTA
1501 TTCATCATCT GCTGGCTGCC CTTCCAGATC AGCACCTTCC TGGATACGCT GCATCGCCTC
1561 GGCATCCTCT CCAGCTGCCA GGACGAGCGC ATCATCGATG TAATCAGACA GATCGCCTCC
1621 TTCATGGCCT ACAGCAACAG CTGCCCTAAC CCACTGGTGT ACGTGATCGT GGGCAAGCGC
1681 TTCCGAAAGA AGTCTTGGA GGTGTACCAG GGAGTGTGCC AGAAAGGGGG CTGCAGGTCA
1741 GAACCCATTC AGATGGAGAA CTCCATGGGC AACTGCGGA CCTCCATCTC CGTGGAACGC
1801 CAGATTCACA AACTGCAGGA CTGGGCAGGG AGCAGACAGT GAGCAAACGC CAGCAGGGCT
1861 GCTGTGAATT TGTGTAAGGA TTGAGGGACA GTTGCTTTTC AGCATGGGCC CAGGAATGCC
1921 AAGGAGACAT CTATGCACGA CTTGGGAAA TGAGTGTGA TGTCTCCGGT AAAACACCGG
1981 AGACTAATTC CTGCCCTGCC CAATTTTCGA GGGAGCATGG CTGTGAGGAT GGGGTGAATC
2041 CACGCACAGC CAAGGACTCC AAAATCACAA CAGCATTACT GTTCTTATTT GCTGCCACAC
2101 CTGAGCCAGC CTGCTCCTTC CCAGGAGTGG AGGAGGCCTG GGGGAGGGAG AGGAGTGACT
2161 GAGCTTCCCT CCCGTGTGTT CTCCGTCCCT GCCCAGCAA GACAACCTAG ATCTCCAGGA
2221 GAACTGCCAT CCACGTTTGG TGCAATGGCT GAGTGCACAA GTGAGTTGTT GCCCTGGGTT
2281 TCTTTAATCT ATCAGCTAGA ACTTTGAAGG ACAATTTCTT GCATTAATAA AGGTTAAGCC
2341 CTGAGGGGTC CCTTGATAAC AACCTGGAGA CCAGGATTTT ATGGCTCCCC TCACTGATGG
2401 ACAAGGAGGT CTGTGCCAAA GAAGAATCAA TAAGCACATA TGAGCACTTC TGTATATCAG
2461 TATTGAGCAC TGTAGGCA

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(2) INFORMATION FOR SEQ ID NO:2457:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1201 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2457:

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1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCCAAC
61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
121 ACCTTTGCCC AGAGCAAATG CCCCAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
481 AAAACCATGT CCATGGGCCG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG TGTTCCGGAC CATGAAGGAG
601 TACAGCGATG AGGGCCACAA CGTCACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG
661 GAAGTGTTCA CCAACATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCTT GAGTGTCTAT
721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCTCTG TTGTGCTGCT GCTATTCTATC
841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAAACC
1081 ATTCAGATGG AGAACTCCAT GGGCACACTT CGGACCTCCA TCTCCGTGGA ACGCCAGATT
1141 CACAACTGCA AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

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(2) INFORMATION FOR SEQ ID NO:2458:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1201 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2458:

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1 ATGTTCTCTC CCTGGAAGAT ATCAATGTTT CTGTCTGTTT GTGAGGACTC CGTGCCCAAC
61 ACGGCCTCTT TCAGCGCCGA CATGCTCAAT GTCACCTTGC AAGGGCCAC TCTTAACGGG
121 ACCTTTGCCC AGAGCAAATG CCCCAGTG GAGTGGCTGG GCTGGCTCAA CACCATCCAG
181 CCCCCCTTCC TCTGGGTGCT GTTCGTGCTG GCCACCCTAG AGAACATCTT TGTCTCAGC
241 GTCTTCTGCC TGCACAAGAG CAGCTGCACG GTGGCAGAGA TCTACCTGGG GAACCTGGCC
301 GCAGCAGACC TGATCCTGGC CTGCGGGCTG CCCTTCTGGG CCATCACCAT CTCCAACAAC
361 TTCGACTGGC TCTTTGGGGA GACGCTCTGC CGCGTGGTGA ATGCCATTAT CTCCATGAAC
421 CTGTACAGCA GCATCTGTTT CCTGATGCTG GTGAGCATCG ACCGCTACCT GGCCCTGGTG
481 AAAACCATGT CCATGGGCCG GATGCGCGGC GTGCGCTGGG CCAAGCTCTA CAGCTTGGTG
541 ATCTGGGGGT GTACGCTGCT CCTGAGCTCA CCCATGCTGG TGTTCCGGAC CATGAAGGAG
601 TACAGCGATG AGGGCCACAA CGTCACCGCT TGTGTCATCA GCTACCCATC CCTCATCTGG

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661 GAAGTGTTC CCAACATGCT CCTGAATGTC GTGGGCTTCC TGCTGCCCT GAGTGTATC
 721 ACCTTCTGCA CGATGCAGAT CATGCAGGTG CTGCGGAACA ACGAGATGCA GAAGTTCAAG
 781 GAGATCCAGA CGGAGAGGAG GGCCACGGTG CTAGTCTGG TTGTGCTGCT GCTATTTCATC
 841 ATCTGCTGGC TGCCCTTCCA GATCAGCACC TTCCTGGATA CGCTGCATCG CCTCGGCATC
 901 CTCTCCAGCT GCCAGGACGA GCGCATCATC GATGTAATCA CACAGATCGC CTCCTTCATG
 961 GCCTACAGCA ACAGCTGCCT CAACCCACTG GTGTACGTGA TCGTGGGCAA GCGCTTCCGA
 1021 AAGAAGTCTT GGGAGGTGTA CCAGGGAGTG TGCCAGAAAG GGGGCTGCAG GTCAGAACCC
 1081 ATTCAGATGG AGAACTCCAT GGGCACACTG CGGACCTCCA TCTCCGTGA ACGCCAGATT
 1141 CACAACTGC AGGACTGGGC AGGGAGCAGA CAGTGAGCAA ACGCCAGCAG GGCTGCTGTG
 1201 AATTTGTGTA AGGATTGAGG GACAGTTGCT T

(2) INFORMATION FOR SEQ ID NO:2459:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 241 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2459:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGGGAC ATCAGGCTGC CCCGAGTAC CAGGGAGCGA CTGAAGTGCC
 121 CATGCCGCTT GCTCCGGAGA AGGTGGGTGC CGGGCAGGGG CTGCTCCAGC CGCCTCACCT
 181 CTGCTGGGAG GACAACTGT CCCAGCACAG AGGGAGGGAG GGAGGGCAGG CAGCGGGGAG
 241 AAGTTTCCTT GTGGTCGTGG GGAGTT

(2) INFORMATION FOR SEQ ID NO:2460:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 241 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2460:

1 GCCCTTCAAA GATGAGCTGT TCCCGCCGCC ACTCCAGCTC TGGCTTCTGG GCTCCGAGGA
 61 GGGGTGGGGA CGGTGGTGAC GGTGGGGACA TCAGGCTGCC CCGCAGTACC AGGGAGCGAC
 121 TGAAGTGCCC ATGCCGCTTG CTCCGGAGAA GGTGGGTGCC GGGCAGGGGC TGCTCCAGCC
 181 GCCTCACCTC TGCTGGGAGG ACAAACTGTC CCAGCACAGA GGGAGGGAGG GAGGGCAGGC
 241 AGCGGGGAGA AGTTTCCTG TGGTCGTGGG GAGTT

(2) INFORMATION FOR SEQ ID NO:2461:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1441 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2461:

1 GAGCTCTTCA ATATTTTAGT GAAAGCTATA GATGAGGCTC CATAGGGGAT AAAGCACAGA
 61 CACACCTTTT CAGAGGGCTT GTGGACTCTG GGCAGCCTGT CCATAGACCT CTGTCCCCAA
 121 CTGGCAAGTC AGGAACTCC AGATTAAGGA GCCCAATGT GGTGAACAG CCAGGTGCAC
 181 AGATGAGTCA ACCACACAGC CAGGCCAGGG AGGGCCTTCA CTCAAGAGCC TACAGCCAGT
 241 TCACAGCCAA GCCAGGGCTA GCGCCAGGCC ACCCATAAAC TGATCTGAGA CTCTGTTTCC
 301 CTGTCTCCAT GATGATGGGA TCAGGCTTGA TTGCTGGTTT GTAGGCTTGT TATGAATCAA
 361 GTACACAGGA AGAGGAGCTG ATGGGCTGGG GGGACGTCTT CTGGCCCTCC TGCTCTTCC
 421 CCAGATCCAC TGGGCCCACT CTTATCTGTT CTCTTCTGAA GGAAGGGTTT TAAGGCTTCA
 481 AAAAAAATG TTTTGAAAGT CCCTGCCCTT TCCAGCTCCT ACCGTCTCAG CCCTGGGAGT
 541 GTAAAGTGCT GCAGATAGTT AGTAAGTCTT TGAGCAAAAC TGAGAAAGCC AGCCTGAGCC
 601 TTGACATGGG AGAAACCTCC GCCATACATC TCCGAAGAAA CGGCCGCGTG TCTCAGGGGA
 661 GCGCAACAC CCGTACCCAG GAAACAGGAC AGCTTCTGCC ACTGTCGCCC TTGGGAGCCG
 721 TACGTGGCAT GACAAAGAAA TCCCAGGACT CCGCTGCCC ACCTGGCCAC CCTCTGTTTA
 781 CACCTTCCGC GTAAACGCCC ACTGTTTACA TCCAAACTC AGACACAAA TAACCACCTC
 841 AAGAAGATAA ATAATGATAA GAAATAAATG TTACGCGAGG CAAATTTATT CACATGGGGC
 901 TTCCAGGCC ACTTTGTGGT CAGCCGGGAG GGACGTTTTT GCGTCCAC GACTCCAACG
 961 GGCAGCCGGG CCTACGCAA CATGGAATC TTCCAAGAGC CTCCCTGGCC CCGAGGGCTC
 1021 AGAGGGTGGC AGAGCGGAGA GCGAAGGTGG CCGCAGCCTT CCCGGCCCCA CAGCCAGCCT
 1081 GGCTCCAGCT GGGCAGGAGT GCAGAGCTCA GCTGGAGGCG AGGGGGAAGT GCCCAGGAGG
 1141 CTGATGACAT CACTACCCAG CCCTTCAAAG ATGAGCTGTT CCCGCCGCA CCTCAGCTCT
 1201 GGCTTCTGGG CTCCGAGGAG GGGTGGGGAC GGTGGTGACG GTGGGGACAT CAGGCTGCCC
 1261 CGCAGTACCA GGGAGCGACT GAAGTGCCCA TGCCGCTTGC TCCGGAGAAG GTGGGTGCCG
 1321 GGCAGGGGCT GCTCCAGCCG CCTCACCTCT GCTGGGAGGA CAAACTGTCC CAGCACAGAG
 1381 GGAGGGAGGG AGGGCAGGCA GCGGGGAGAA GTTTCCTGT GGTCTGGGG AGTTGGGAAA
 1441 AGTTCCTTC CTCCGGAGG GAGG

(2) INFORMATION FOR SEQ ID NO:2462:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1381 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2462:

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1 CTTTGTGAAG AAGGAATTGG CAACACTGAA ACCTCCAGAA CAAAGGCTGT CACTAAGGTC
61 CCGCTGCCTT GATGGATTAT ACACTTGACC TCAGTGTGAC AACAGTGACC GACTACTACT
121 ACCCTGATAT CTTCTCAAGC CCCTGTGATG CGGAACCTAT TCAGACAAAT GGCAAGTTGC
181 TCCTTGCTGT CTTTTATTGC CTCCTGTTTG TATTCAGTCT TCTGGGAAAC AGCCTGGTCA
241 TCCTGGTCTT TGTGGTCTGC AAGAAGCTGA GGAGCATCAC AGATGTATAC CTCTTGAACC
301 TGGCCCTGTC TGACCTGCTT TTTGTCTTCT CCTTCCCTT TCAGACCTAC TATCTGCTGG
361 ACCAGTGGGT GTTGGGACT GTAATGTGCA AAGTGGTGTC TGGCTTTTAT TACATTGGCT
421 TCTACAGCAG CATGTTTTTC ATCACCCTCA TGAGTGTGGA CAGGTACCTG GCTGTTGTCC
481 ATGCCGTGTA TGCCCTAAAG GTGAGGACGA TCAGGATGGG CACAACGCTG TGTGTGGCAG
541 TATGGCTAAC CGCCATTATG GCTACCATCC CATTGCTAGT GTTTTACCAA GTGGCCTCTG
601 AAGATGGTGT TCTACAGTGT TATTCATTTT ACAATCAACA GACTTTGAAG TGGAAGATCT
661 TCACCAACTT CAAATGAAC ATTTTAGGCT TGTGTATCCC ATTCACCATC TTTATGTTCT
721 GCTACATTAA AATCCTGCAC CAGCTGAAGA GGTGTCAAAA CCACAACAAG ACCAAGGCCA
781 TCAGGTTGGT GCTCATTGTG GTCATTGCAT CTTTACTTTT CTGGGTCCCA TTCAACGTGG
841 TTCTTTTCTT CACTTCCTTG CACAGTATGC ACATCTTGGG TGGATGTAGC ATAAGCCAAC
901 AGCTGACTTA TGCCACCCAT GTCACAGAAA TCATTTCCTT TACTCACTG TGTGTGAACC
961 CTGTTATCTA TGCTTTTGTT GGGGAGAAGT TCAAGAAACA CCTCTCAGAA ATATTTCAGA
1021 AAAGTTGCAG CCAATCTTC AACTACCTAG GAAGACAAAT GCCTAGGGAG AGCTGTGAAA
1081 AGTCATCATC CTGCCAGCAG CACTCCTCCC GTTCTCCAG CGTAGACTAC ATTTTGTGAG
1141 GATCAATGAA GACTAAATAT AAAAAACATT TTCTTGAATG GCATGCTAGT AGCAGTGAGC
1201 AAAGGTGTGG GTGTGAAAGG TTTCCAAAAA AAGTTCAGCA TGAAGGATGC CGTGTGTGTT
1261 GTTGCCAAAC CTTGGAACAC AATGACTGGA GACATAGTTG TGCATGCCTG GCACAACATC
1321 AAGCCTGTGA TTGTGTTTAT TGATGATGTT GAACAAGTGG TGGCTTTGAG GGATTCTGTA
1381 TGCCAAGTGG AAAAAAAGA TGTCTCCGGA ATTCGACAGG TTATCA
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(2) INFORMATION FOR SEQ ID NO:2463:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5161 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2463:

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1 TTTTCATCTCT CCGGGCTTAT TTGCTGGTTT CTCCGAATGC GGGCCTTGTC TGGTTCACGC
61 TGGATCCCCA ACGCCTAGAA CAGTGCCTGG CACGCAGTTC GTCCTTCTAT AAATATCGGA
121 CTAATATGCAT CTCTGTGATG GTAATACCCA CACGGTGTG TGAGAATGAA TGAGTGATTC
181 TGTGCAAGTT CCTAGTGATC TGTTACAAA AGTACTGGTC GCTAAATTAC TCTTATATA
241 AAGCATACTT TTAGGATAAT AAAGCACTAT TCGCGAATTG GTTACCGCTA TTATGAAATT
301 ACTGAGCAAT ACATATCTAC ATCTGATCAG TCTCCAGAA TATGCCAAAT CCTACCTTCT
361 TCTGAAAGTA TCTCCTAATT ATCTGCACCT GACCCTAGTG ATGCTGTGAA TGTGCAAGTA
421 TAGCTACATC CTCCGAAGGA AGGATCTTTA CTCCTTTTAC CTCCTGAATG GGCTGCGTCT
481 GCTGAAAGCG CGGGGGAATG GGCGTTGGA AGCTTGCCCC TACTTCCAGC ATTGCCGCTT
541 ACTGGTTGGG TTAATCCAGC AAGTCACTCC CCTTCCCTGG GCCTCAGTGT CTCTACTGTA
601 GCATTCCTAGC GTCTGGAATT CCATCCACTT TAGCAAGGAT GGACGCGCCA CAGAGAGACG
661 CGTTCCTAGC CCGCGCTTCC CACCTGTCTT CAGGCGCATC CCGCTTCCCT CAACTTAGG
721 AATGCCTCT GGGAGGTCCT GTCCGGCTCC GGAATCACTA CCGACACCC GCAAACAGCA
781 GGGTCCCCTG GGCTTCCCAA GCCGCGCACC TCTCCGCCCC GCCCCTGCGC CCTCCTTCTT
841 CGCGTCTGCC CCTCTCCCC ACCCGCCTT CTCCTCCCC GCGCCAGCGG CGCATGCGCC
901 CGGCTCGGAG CGTGTTTTAA TAAAGTCCG GCCGCGGCCA GAAACTTCAG TTTGTTGGCT
961 GCGGCAGCAG GTAGCAAAGT GACGCCGAGG GCCTGAGTGC TCCAGTAGCC ACCGCATCTG
1021 GAGAACCAGC GGTACCATG GAGGGATCA GTGTAAGTCC AGTTTCAAC TGCTTTGTCA
1081 TAAATGTACA AACGTTTGAA CTTAGAGCGC AGCCCTCTC CGAGCGGGCA GAAGCGGCCA
1141 GGACATTGGA GGTACCCGTA CTCCAAAAA GGGTCACCGA AAGGAGTTTT CTTGACCATG
1201 CCTATATAGT GCGGGTGGT GGGGGGGGAG CAGGATTGGA ATCTTTTCT CTGTGAGTGC
1261 AGGAGAAACG ACTGGAAGA GCGTCCAGT GGCTGCATGT GTCTCCCCCT TGAGTCCGCG
1321 CGCGCGCGGC GGCTTGCACG CTGTTTGCAA ACCTAAGAAC ATTCTGTGCA CAAGTCGAGA
1381 GAAGGCGTGC GCGCTGCCTC GGGACTCAGA CCACCGGTCT CTTCTTTGGG GAAGCGGGGA
1441 TGTCTTGGAG CGAGTTACAT TGTCTGAATT TAGAGCGGGA GGGCGGCTG CCTGGGCTGA
1501 CTTCCAGGA GGAGATTGCG CCCGCTTAA CTTGCGGGT AAGCGCCTG TGACTGTTCT
1561 TGACACTGGG TCGGTGTTG TTAACCTCTG TGCGGCCGAC GGAGCTGTGC CAGTCTCCCA
1621 GCACAGTAGG CAGAGGCGG GAGAGGCGG TGGACCCACC GCGCCGATCC TCTGAGGGGA
1681 TCGAGTGGTG GCAGCAGCTA GGAGTTGATC CGCCCGCGCG CTTTGGGTTT GAGGGGAAA
1741 CTTCCCCGCC GTCCGAAGCG CGCTCTTCC CCACGCGCG GAGTGGGTCC TGCATTGCA
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1801 GAGTTTGGGG TCGTGCAGAG GTCAGCGGAG TGGTTTGACC TCCCCTTTGA CACCGCGCAG
1861 CTGCCAGCCC TGAGATTTGC GCTCCGGGGA TAGGAGCGGG TACGGGGTGA GGGGCGGGGG
1921 CGGTTAAGAC CGCACCTGGG CTGCCAGGTC GCCGCCGCGA AGACTGGCAG GTGCAAGTGG
1981 GGAAACCGTT TGGCTCTCTC CGAGTCCAGT TGTGATGTTT AACCGTCGGT GGTTCACAGA
2041 AACCTTTTGA AACCTCTCTG CTAGGGAGTT TTTGGTTTCC TGCAGCGGCG CGCAATTCAA
2101 AGACGCTCGC GCGGAGCCG CCCAGTCCGT CCCAGCACC CTGTGGGACA GAGCCTGGCG
2161 TGTGCCCCAG CGGAGCCCCT GCAGCGCTGC TTGCGGGCGG TTGGCGTGGG TGTAGTGGGC
2221 AGCCGCGGCG GCCCGGGGCT GGACGACCCG GCGCCCGCGG TGCCACCCGC CTGGAGGCTT
2281 CCAGCTGCCC ACCTCCGGCC GGGTTAACTG GATCAGTGGC GGGGTAATGG GAAGCCACCC
2341 GGGAGAGTGA GGAAATGAAA CTTGGGGCGA GGACCACGGG TGCAGACCCC GTTACCTTCT
2401 CCACCCAGGA AAATGCCCCG CTCCTAACG TCCCAAACGC GCCAAGTGAT AAACACGAGG
2461 ATGGCAAGAG ACCCACACAC CGGAGGAGCG CCCGCTTGGG GGAGGAGGT CCGTTTGTTC
2521 ATTTTCTGAC ACTCCCGCCC AATATACCCC AAGCACCGAA GGGCCTTCGT TTTAAGACCG
2581 CATTCTCTTT ACCCACTACA AGTTGCTTGA AGCCCAGAAT GGTGTGTATT TAGGCAGGCG
2641 TGGGAAAATT AAGTTTTTGC GCTTAGGAG AATGAGTCTT TGCAACGCCC CCGCCCTCCC
2701 CCGTGATCC TCCCTTCTCC CCTCTTCCCT CCCTGGGCGA AAAACTTCTT ACAAAGTGT
2761 AATCACTGCC CCTCCTAGCA GCACCCACCC CACCCCCAC GCCGCTGGG AGTGGCCTCT
2821 TTGTGTGTAT TTTTTTTTTT CTCCTAAGGA AGGTTTTTTT TCTTCCCTCT AGTGGGCGGG
2881 GCAGAGGAGT TAGCCAAGAT GTGACTTTGA AACCCTCAGC GTCTCAGTG CCTTTTGTTC
2941 TAAACAAAGA ATTTTGTAAAT TGGTTCTACC AAAGAAGGAT ATAATGAAGT CACTATGGGA
3001 AAAGATGGGG AGGAGAGTTG TAGGATTCTA CATTAAATTCT CTTGTGCCCT TAGCCCACTA
3061 CTTCAGAATT TCCTGAAGAA AGCAAGCCTG AATTGGTTTT TTAATTTGCT TTAAGATTTT
3121 TTTTAACTG GGTAAATGCT TGCTGAATTG GAAGTGAATG TCCATTCTCT TGCCTCTTTT
3181 GCAGATATAC ACTTCAGATA ACTACACCGA GGAAATGGGC TCAGGGGACT ATGACTCCAT
3241 GAAGGAACCC TGTTTCCGTG AAGAAAATGC TAATTTCAAT AAAATCTTCC TGCCACCAT
3301 CTACTCCATC ATCTTCTTAA CTGGCATTGT GGGCAATGGA TTGGTCCATC TGTATGGG
3361 TTACCAGAAG AAAGTGAGAA GCATGACGGA CAAGTACAGG CTGCACCTGT CAGTGGCCGA
3421 CCTCCTCTTT GTCATCACGC TTCCCTTCTG GGCAGTTGAT GCCGTGGCAA ACTGGTACTT
3481 TGGGAACCTC CTATGCAAGG CAGTCCATGT CATCTACACA GTCAACCTCT ACAGCAGTGT
3541 CCTCATCCTG GCCTTCATCA GTCTGGACCG CTACCTGGCC ATCGTCCACG CCACCAACAG
3601 TCAGAGGCCA AGGAAGCTGT TGGCTGAAAA GGTGGTCTAT GTTGGCGTCT GGATCCCTGC
3661 CCTCCTGCTG ACTATTCCCG ACTTCATCTT TGCCAACGTC AGTGAGGCAG ATGACAGATA
3721 TATCTGTGAC CGCTTCTACC CCAATGACTT GTGGGTGGTT GTGTTCCAGT TGCAGACAT
3781 CATGGTTGGC CTTATCCTGC CTGGTATTGT CATCCTGTCC TGCTATTGCA TTATCATCTC
3841 CAAGCTGTCA CACTCCAAGG GCCACCAGAA GCGCAAGGCC CTCAAGACCA CAGTCATCCT
3901 CATCCTGGCT TTCTTCGCC TTTGGCTGCC TTAATACATT GGGATCAGCA TCGACTCCTT
3961 CATCCTCCTG GAAATCATCA AGCAAGGGTG TGAGTTTGAG AACACTGTGC ACAAGTGGAT
4021 TTCCATCACC GAGGCCCTAG CTTTCTTCCA CTGTTGTCTG AACCCCATCC TCTATGCTTT
4081 CCTTGGAGCC AAATTTAAAA CCTCTGCCA GCACGCACTC ACCTCTGTGA GCAGAGGGTC
4141 CAGCCTCAAG ATCCTCTCCA AAGGAAAGCG AGGTGGACAT TCATCTGTTT CCACTGAGTC
4201 TGAGTCTTCA AGTTTTCACT CCAGCTAACA CAGATGTAAG AGACTTTTTT TTATACGATA
4261 AATAACTTTT TTTTAAAGTA CACATTTTTC AGATATAAAA GACTGACCAA TATTGTACAG
4321 TTTTATTGCT TTGTTGGATT TTTGTCTTGT GTTTCTTTAG TTTTGTGAA GTTTAATTGA
4381 CTTATTTATA TAAATTTTTT TTGTTTCATA TTGATGTGTG TCTAGGCAGG ACCTGTGGCC
4441 AAGTCTTAG TTGCTGTATG TCTCGTGGTA GGAAGGAACT AAAGGAACT GAACATTCCA
4501 GAGCGTGTAG TGAATCACGT AAAGCTAGAA ATGATCCCCA GCTGTTTATG CATAGATAAT
4561 CTCTCCATTC CCGTGGAAAG TTTTCTCTGT TCTTAAGACG TGATTTTGCT GTAGAAGATG
4621 GCACTTATAA CCAAAGCCCA AAGTGGTATA GAAATGCTGG TTTTTCAGTT TTCAGGAGTG
4681 GGTGATTTC AGCACCTACA GTGTACAGTC TTGTATTAAG TTGTTAATAA AAGTACATGT
4741 TAAACTTACT TAGTGTTATG TTCTGATTTC TGTTGACATT CTTTGGGCTA GTAGAAGACA
4801 AAAGTAATAC ATTTATGGTA TGCAAAGCAC TATCCTAGGT ATTTTATTGT AATATTTTAC
4861 TTACCCCTTA TCACAACTCT GATAGATTCT GCTTCTGTTA CTAATTACAT TTTATAGAAG
4921 AGGAAACGGA GGCACAGAAA GCCTAAGTAA CTTGGTTAAA GGCATGTAGT AAGTATCAAA
4981 TCCTGTATTT TAAACCAGGT AACATGACTT AACGAATCTG AAGCCTTCAC CACTTTAAAT
5041 TCAAATGGAA GTTTAGAAAT GGCCAGCCAG CACCTATTTG TATGAAAGGT CATCTTTCAG
5101 AGGATAAGCA TGTATAAAGA AGAAAAGGTA TGCAGTCGTG TTTGATTTT ACTCCACCAT
5161 C

(2) INFORMATION FOR SEQ ID NO:2464:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 841 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2464:

1 AGGATGATGG TGATGGGGAA CTAATGGGG AAATATGGAA GGTACAGGA AAAGTTAACA
61 CAAGTTAGCA AAAAGTTAAC ATAACACAAA AAGGTCTTGC AGGAAAAAAA AAAGAAAAGA
121 AAAGAAAAGAA AAAGTCTCCA AGAATGGTTT GGACAGCCAA AATGAATACT TATAGTCAGC
181 TATACCTGCT CACTCCTGAC GCTTCACTCA CACACAGCAC AGGATCTGGT GAGGCTATCA

241 CTAAATGTGC CACATTGTGG TTAAGTTTTC CCTGATTAAAC GAAATGCTCA CACTTCTAAA
301 CTGAGGTCTCT TACAGTAGAT TCCTTTTGCA AGATTGTTAC TGGCTTACAA CTAAAAATA
361 AAGGAAAATC ACAAGGAAAG AAAAGTGGGG AAAAAATCGG AGGAAACTTG CCCTGCCCT
421 GGCCACCGGC AAGGCTGCCA CAAAGGGGTT AAAAGTTAAG TGAAGTGA GCTTGAAGAA
481 TTGGGATGGG GCCTCTCCAG GAAAGCTGAA CGAGGCATCT GGAGCCCGAA CAAACCTCCA
541 CCTTTTGTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTTGGGA
601 CCAACCAGGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG CCAAGACTAA
661 AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCC ACCCTCTCC CGGGCGGAGG
721 GGGCGGGAAG AGCGCTCTCT GGCCAAGCCG AGTAGTGTCT TCCACTCGGT CGCTCTCTCT
781 AGGAGCCGCG CGGGAAGGAT GCTGGTCCGC AGGGGCGCGC GCGCAGGGCC CAGGATGCCG
841 CGGGGCTGGA CCGCGCTTGG CTTGCTGAGT TTGCTGC

(2) INFORMATION FOR SEQ ID NO:2465:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2465:

1 CCTTTTTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTTGGGA
61 CCAACCAGGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG CCAAGACTAA
121 AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCC ACCCTCTCC CGGGCGGAGG
181 GGGCGGGAAG AGCGCTCTCT GGCCAAGCCG AGTAGTGTCT TCCACTCGGT CGCTCTCTCT
241 AGGAGCCGCG CGGGAAGGAT GCTGGTCCGC AGGGGCGCGC GCGAGGGCCC AGGATGCCGC
301 GGGGCTGGAC CGCGCTTGGC TTGCTGAGTT TGCTGCCTTC TGGGTTTCATG AGTCTTGACA
361 ACAACGGTAC TGCTACCCCA GAGTTACCTA CCCAGGGAAC ATTTTCAAAT GTTTCTACAA
421 ATGTATCCTA CCAAGAAACT ACAACACCTA GTACCCTTGG AAGTACCAGC CTGCACCTG
481 TGTCTCAACA TGGCAATGAG GCCACAACAA ACATCACAGA AACGACAGTC AAATTCACAT
541 CTACCTCTGT GATAACCTCA GTTTATGGAA ACACAACTC TTCTGTCCAG TCACAGACCT
601 CTGTAATCAG CACAGTGTTC ACCACCCAG CCAACGTTTC AACTCCAGAG ACAACCTTGA
661 AGCCTAGCCT GTCACCTGGA AATGTTTCAG ACCTTTCAAC CACTAGCACT AGCCTTGCAA
721 CATCTCCAC TAAACCCTAT ACATCATCTT CTCCTATCCT AAGTGACATC AAGGCAGAAA
781 TCAAATGTTT AGGCATCAGA GAAGTGAAT TGAATCAGGG CATCTGCCTG GAGCAAAATA
841 AGACCTCCAG CTGTGCGGAG TTTAAGAAGG ACAGGGGAGA GGGCCTGGCC CGAGTGTCTGT
901 GTGGGGAGGA GCAGGCTGAT GCTGATGCTG GGGCCAGGT ATGCTCCCTG CTCCTTGCCC
961 AGTCTGAGGT GAGGCCTCAG TGTCTACTGC TGGTCTTGGC CAACAGAACA GAAATTTCCA
1021 GCAAACCTCA ACTTATGAAA AAGCACCAAT CTGACCTGAA AAAGCTGGGG ATCCTAGATT
1081 TCACTGAGCA AGATGTTGCA AGCCACCAGA GCTATTCCCA AAAGACCCTG ATTGCACTGG
1141 TCACCTCGGG AGCCCTGCTG GCTGTCTTGG GCATCACTGG CTATTTCCCTG ATGAATCGCC
1201 GCAGCTGGAG CCCCACAGGA GAAAGGCTGG GCGAAGACCC TTATTACAGG GAAACCGGTG
1261 GAGGCCAGGG CTATAGCTCA GGACCTGGGA CCTCCCTGTA GGCTCAGGGA AAGGCCAGTG
1321 TGAACCGAGG GGCTCAGAAA AACGGGACCG GCCAGGCCAC CTCAGAAAC GGCCATTACG
1381 CAAGACAACA CGTGGTGGCT GATACCGAAT TGTGACTCGG CTAGGTGGGG CAAGGCTGGG
1441 CAGTGTCCGA GAGAGCACCC CTCTCTGCAT CTGACCACGT GCTACCCCA TGCTGGAGGT
1501 GACATCTCTT ACGCCCAACC CTTCCCACT GCACACACCT CAGAGGCTGT TCTTGGGGCC
1561 CTACACCTTG AGGAGGGGGC AGGTAACTC CTGTCCTTTA CACATTCCGC TCCCTGGAGC
1621 CAGACTCTGG TCTTCTTGG GTAAACGTGT GACGGGGGAA AGCCAAGGTC TGGAGAAGCT
1681 CCCAGGAACA ATCGATGGCC TTGCAGCACT CACACAGGAC CCCCTTCCC TACCCCTCC
1741 TCTCTGCCGC AATACAGGAA CCCCAGGGG AAAGATGAGC TTTTCTAGGC TACAATTTTC
1801 TCCCAGGAAG CTTTGATTTT TACCGTTTCT TCCCTGTATT TTCTTTCTCT ACTTTGAGGA
1861 AACCAGAGTA ACCTTTTGCA CCTGCTCTCT TGTAATGATA TAGCCAGAAA AACGTGTTGC
1921 CTTGAACCAC TTCCCTCATC TCTCCTCCAA GACACTGTGG ACTTGGTCAC CAGCTCCTCC
1981 CTTGTTCTCT AAGTTCCACT GAGCTCCATG TGCCCCCTCT ACCATTTGCA GAGTCTGCA
2041 CAGTTTTCTG GCTGGAGCCT AGAACAGGCC TCCCAAGTTT TAGGACAAAC AGCTCAGTTC
2101 TAGTCTCTCT GGGGCCACAC AGAACTCTT TTTGGGCTCC TTTTCTCCC TCTGGATCAA
2161 AGTAGGCAGG ACCATGGGAC CAGGTCTTGG AGCTGAGCCT CTCACCTGTA CTCTTCCGAA
2221 AAATCCTCTT CCTCTGAGGC TGGATCCTAG CCTTATCCTC TGATCTCCAT GGCTTCTCC
2281 TCCCTCCTGC CGACTCCTGG GTTGAGCTGT TGCCTCAGTC CCCCACAGA TGCTTTCTG
2341 TCTCTGCCTC CCTCACCCTG AGCCCCCTCC TTGCTCTGCA CCCCATATG GTCATAGCCC
2401 AGATCAGCTC CTAACCCTTA TCACCAGCTG CCTCTTCTGT GGGTGACCCA GGTCTTGT
2461 TGCTGTTGAT TTCTTTCCAG AGGGGTTGAG CAGGGATCCT GGTTCATG ACGGTTGGAA
2521 ATAGAAATTT CCAGAGAAGA GAGTATTGGG TAGATATTTT TTCTGAATAC AAAGTGATGT
2581 GTTTAAATAC TGCAATTAAA GTGATACTGA AACAC

(2) INFORMATION FOR SEQ ID NO:2466:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3422 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2466:

AGGATGATGG TGATGGGGAA CTAAATGGGG AAATATGGAA GGTCACAGGA AAAGTTAACA CAAGTTAGCA AAAGTTAAC
ATAACACAAA AAGGTCTTGC AGGAAAAAAA AAAGAAAAGA AAAGAAAGAA AAGTCTCCA AGAATGGTTT
GGACAGCCAA AATGAATACT TATAGTCACG TATACCTGCT CACTCCTGAC GCTTCACTCA CACACAGCAC
AGGATCTGGT GAGGCTATCA TAAATGTGC CACATTGTGG TTAAGTTTAA CTGATTAAC GAAATGCTCA CACTTCTAAA
CTGAGGTCTT TACAGTAGAT TCCTTTTGCA AGATTGTAC TGGCTTACAA CTTAAAAATA AAGGAAAATC
ACAAGGAAAG AAAAGTGGGG AAAAATCGG AGGAAACTTG CCCCTGCCCT GGCCACCGGC AAGGTGCCA
CAAAGGGGTT AAAAGTTAAG TGGAAGTGGA GCTTGAAGAA GTGGGATGGG GCCTCTCCAG GAAAGCTGAA
CGAGGCATCT GGAGCCCGAA CAAACCTCCA CTTTTTTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT
AACGCCCTCC GCCTTTGGGA CCAACCAGGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG
CCAAGACTAA AAAGGGAGGG GAGAAGAGAG GAAAAAGCA AGAATCCCC ACCCTCTCC CGGGCGGAGG
GGGCGGGAAG AGCGCGTCTT GGCCAAGCCG AGTAGTGTCT TCCAATCGGT GCGTCTCTCT AGGAGCCGG
CGGGAAGGAT GCTGGTCCG AGGGGCGCGC GCGCAGGCC CAGGATGCCG CGGGCTGGA CCGCGCTTGT
CTTGCTGAGT TTGCTGC CTTTTTTTGG CCTCGACGGC GGCAACCCAG CCTCCCTCCT AACGCCCTCC GCCTTTGGGA
CCAACCCAGG GAGCTCAAGT TAGTAGCAGC CAAGGAGAGG CGCTGCCTTG CCAAGACTAA AAAGGGAGGG
GAGAAGAGAG GAAAAAGCA AGAATCCCC ACCCTCTCC CGGGCGGAGG GGGCGGGAAG AGCGCGTCTT
GGCCAAGCCG AGTAGTGTCT TCCAATCGGT GCGTCTCTCT AGGAGCCCGC CGGGAAGGAT GCTGGTCCGC
AGGGGCGCGC GCGAGGGCCC AGGATGCCG GGGGCTGGAC CGCGCTTTGC TTGCTGAGTT TGCTGCCTTC
TGGGTTTATG AGTCTTGACA ACAACGGTAC TGCTACCCCA GAGTTACCTA CCCAGGGAAC ATTTTCAAT
GTTTCTACAA ATGTATCCTA CCAAGAACT ACAACACCTA GTACCCTTGG AAGTACCAGC CTGCACCTTG
TGTCTCAACA TGGCAATGAG GCCACAACA ACATCACAGA AACGACAGTC AAATTCACAT CTACCTCTGT
GATAACCTCA GTTTATGGAA ACACAACTC TTCTGTCCAG TCACAGACCT CTGTAATCAG CACAGTGTTC
ACCACCCAG CCAACGTTTC AACTCCAGAG ACAACCTTGA AGCCTAGCCT GTCACCTGGA AATGTTTCAG
ACCTTTCAAC CACTAGCACT AGCCTTGCAA CATCTCCAC TAAACCTAT ACATCATCTT CTCCTATCCT
AAGTGACATC AAGGCAGAAA TCAAATGTT AGGCATCAGA GAAGTGAAT TGACTCAGGG CATCTGCCTG
GAGCAAAATA AGACCTCCAG CTGTGCGGAG TTTAAGAAAG ACAGGGGAGA GGGCTGGCC CGAGTGCTGT
GTGGGGAGGA GACGCTGAT GCTGATGCTG GGGCCAGGT ATGCTCCCTG CTCCTTGGCC AGTCTGAGGT
GAGGCCTCAG TGTCTACTGC TGGTCTTGGC CAACAGAACA GAAATTTCCA GCAAACCTCA ACTTATGAAA
AAGCACCAAT CTGACCTGAA AAAGCTGGGG ATCCTAGATT TCACTGAGCA AGATGTGCA AGCCACCAGA
GCTATTCCCA AAAGACCCTG ATTGCACTGG TCACCTCGGG AGCCCTGCTG GCTGTCTTGG GCATCACTGG
CTATTTCTTG ATGAATCGCC GCAGCTGGAG CCCACAGGA GAAAGGCTGG GCGAAGACCC TTATTACACG
GAAAACGGTG GAGGCCAGGG CTATAGCTCA GGACCTGGGA CCTCCCTGA GGCTCAGGGA AAGGCCAGTG
TGAACCGAGG GGCTCAGAAA AACGGGACCG GCCAGGCCAC CTCAGAAAC GGCCATTGAG CAAGACAACA
CGTGGTGGCT GATACCGAAT TGTGACTCGG CTAGGTGGGG CAAGGCTGGG CAGTGTCCGA GAGAGCACCC
CTCTCTGCAT CTGACCACGT GCTACCCCCA TGCTGGAGGT GACATCTCTT ACGCCCAACC CTTCCCCACT
GCACACACCT CAGAGGCTGT TCTTGGGGCC CTACACCTTG AGGAGGGGGC AGGTAACTC CTGTCCCTTA
CACATTGGGC TCCCTGGAGC CAGACTCTGG TCTTCTTTGG GTAAACGTGT GACGGGGGAA AGCCAAGGTC
TGGAGAAGCT CCCAGGAACA ATCGATGGCC TTGCAGCACT CACACAGGAC CCCCTTCCC TACCCCTCC
TCTCTGCCG AATACAGGAA CCCCAGGGG AAAGATGAGC TTTTCTAGGC TACAATTTTC TCCAGGAAG
CTTTGATTTT TACCGTTTCT TCCCTGTATT TTCTTTCTCT ACTTTGAGGA AACCAGGTA ACCTTTTGCA
CCTGCTCTCT TGTAAATGATA TAGCCAGAAA AACGTGTTGC CTTGAACCA TCCCTCATC TCTCTCCA
GACACTGTGG ACTTGGTCAC CAGCTCCTCC CTTGTCTCT AAGTTCACCT GAGTCCATG TGCCCTCTCT
ACCATTGTGA GAGTCTCTCA CAGTTTCTG GCTGGAGCCT AGAACAGGCC TCCCAGTTT TAGGACAAAC
AGCTCAGTTC TAGTCTCTCT GGGGCCACAC AGAACTCTT TTTGGGCTCC TTTTCTCCC TCTGGATCAA
AGTAGGACAG ACCATGGGAC CAGGTCTTGG AGCTGAGCCT CTCACCTGTA CTCTCCGAA AAATCCTCTT
CCTCTAGGC TGATCCTAG CCTTATCCTC TGATCTCCAT GGCTTCTCC TCCCTCCTCC CGACTCCTGG
GTTGAGCTGT TGCTCAGTC CCCCACAGA TGCTTTCTG TCTCTGCCTC CCTCACCTG AGCCCTTCC
TTGCTCTGCA CCCCATATG GTCATAGCCC AGATCAGCTC CTAACCTTA TCACAGCTG CCTCTCTGT
GGGTGACCCA GGTCTTGTG TGCTGTTGAT TTCTTTCCAG AGGGGTTGAG CAGGATCCT GGTTCATG
ACGGTTGGAA ATAGAAATTT CCAGAGAAGA GAGTATTGGG TAGATATTTT TTCTGAATAC AAAGTGATGT
GTTAAATAC TGCAATTAAG GTGATACTGA AACAC 3422

(2) INFORMATION FOR SEQ ID NO:2467:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8101 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2467:

1 TCCAGTTAA TACATAATCA ATATGCAATT TATTAATACA TCTCTCCATG TCCACTCCCC
61 CTGTATCTTG CCATTCTTGA CCGCATTTT CATCCTCCTT ACCTTCCCTA GAGGCCAACT
121 CATTTCCTTT GAAAAACCTG GCATTTCCTA GAAAAAAG TGAAGGGCTG GGAGCTGTCC
181 GTTGTCTTGA TTTGCTCCCT CTGCCCCTGC TTCCAAATGT GGTGGAAAG AAGCACTATT
241 GAAAAATCCC TAAACGCACC CCGCAGGGT TGGCTCTACC CTGTAGCCAT GGACACATGC
301 TGTGATACC ACCTGCCTCA TGAGTCTCAC ATAATTGCC CTTTCACT ATCTACCCCA
361 TCAGCCTTAC CAAACCATTA CCGCATCCT GGGCAGCATC TGCCCTTCAA GAGACTAAGG
421 AATCTCCTTG CAACCAAGAA TGACTAGACC AATGAGACAC CCTTAAAGG CCCAGCACAA
481 TATAGAAATC CCACAATATG GTAATCCAG TAAGGAGCTA TCAAGCCATT GCAGGACCAT
541 CTAGAATACA ACTAGAGTAT AGTTCCTTTC AATCCAGGAA CTATACTCTA ACAGCTTGGC

601 TCACAGGAAC CAGAAGTGAA GATGATGAGG ATCAGGGCTG AGCCTGTGAG CACCAGCTCC
661 ACCACTGACA CCAACCACAG ATTAACAAG CATCTGTGG ACCCTGGGA TGGAAAGAAT
721 AGTTGTTGCC TTATCAACCT CCCCCACAGC CCACACAGAA AAGATAAAAT CATCATGGCT
781 ACAGTGTTAC AGAAGATGAT GACCCAAGGA GTAGGCCTGC CTGAGTGAAT GCTGAGAGTG
841 ATAATGGGAG CAGTAGCATC TCAGAGACTA CAGCAGAAAC CATCCACATA AAGAGCTTTG
901 CCCAAACTTA TGATAAAGGG CACCTCAGA GACTCTCCCT ACTTTAATAT TAGCCCATTG
961 CAGAAATGGT GAGTGGAAG AGAAATCTTA GGAAGAACC CTTAAAAAAG CAAAATGCTT
1021 TTTAGGTTTG TGCTGAAGAG CCTGGAAAAG AAATAAGGAC ACACACGCTG AGAAATCTTC
1081 CTCTGCCCC AACACTGGGA TAATCTCAA GGATCTCTCC ATATCTCATT CTCCTGGATA
1141 CACTGTCCAC TCAGAAATAT TGTGCAGAGT GCAGTAATTC AAAAGTGAGC TATTGTGTTA
1201 GGAGTGAAG CAAGAGTATC GTAAATAAAA TCAAATTTGA AATGAATTCT CTTAAATTGC
1261 TTTATAGATG TTTAATGTAA GCCAGCAGT ATTAACGAT AACCTTAA TCGAGAAAA
1321 ACTTGGTCAT TCAGAAACTA TAGAAACAGG CAGGACTTAT TGGGAGGCA AACACAGAGT
1381 GAGCTCCAGC CTGCTTCAGG AAAATCTGCC AGTGCCATGA AGGATGTACT CTGTCTGCTC
1441 CACTGCACTA CTGCTCAGTA TGAGCCCATG CCATCAGCTG TCCCTGACCC ACAGGAGTTC
1501 TTTAGAAGAG ACTGGTCAAC AAAAGTTTCT AGGGTGTITT ATACCTGCCA ACTCGAGGGT
1561 TAAACAAGT TGCATAGAAA TGCTCAATCA AGAAAGACAC AGTCATTACT CAGAGAATAA
1621 TAAACAGCCT GGCAGCACAT GAATGAATAG AAAAAAGATG TTACATGCAA AGCATGAAT
1681 AACCAAATTC CATAACAGAT GTTAATCTGT AATGTGTTA GGAGAATTTA GAGGAAGTAT
1741 AAGATTTATT CTTTCATCAA AAAAATTATA GCCAATGAGG ATATATCTAT CAATTATCCA
1801 TCAAGTGGTG ATATGGCAGC ACAAGGTAAC ACACAAAGGA ATAAACCAC CGTTTATTAA
1861 GAACCAATCA TGTGGCATT CACATTGAGC ATCATATTTA ATTCTGAAAA AAATCCTTGT
1921 ACTGTATCAT TCTTCATATT TTATGGATGC AGTAACTAAG GCTGAGAACT TTAATAATTT
1981 TCCTAAGTTC AGACACATAG CTAAGTGGCA GAACCAAGAT TCAAACTCAC CCCATCTAAC
2041 TGCAGAGCAA ACTGCATGCC TTAAATGTCA AAGTGAATAC TAGCACAGTT AATACAATGT
2101 TTGGAATCTC AGAGAAGGAA TGATCCCTCT GCATTATAGT TACTAAGGAA TCATTGCCAT
2161 TATTTAAATG CCAGTGCTTC TACATCAGGC CCAAATTTTC TGTCTACTA ACTGTGAATC
2221 AAGACTTGAT TCAACCTCTA CTTGAGTATC TGCCGCAATG AGAAATCACT TACCTCCACT
2281 AACCAACAT TTATTTTATA ACAACAGATT GTTAGTAAGT CCTTCTTAT ACATACTCAA
2341 CAGCTGCTTC CCAAGATGCT GTAGGATTAT GTCTAGAGTC AAAGTAGCCA GAAGCAATGT
2401 CCAAAATACA CCATAACACT GTGCAGCAA GGTCTTACTA CCACTTGTTT GGCCCAACAA
2461 TTCTAGGCAG CACTGGATAT CTGAATCATC AATTATTTC ACAAACACTG ACCCTCTAC
2521 CAGTACCCT CACTAGAAGA ATTAATTCCA CATGATAATA GCTCCCTCAT GTTACTCCCT
2581 TCTAAGTCAA ATTGTACACC CTTTATCTG ATTAACAGAG TCTAAGTCAC ATGACCTAAA
2641 TGCAAGAGAA CTGGGAATGG ACCTTTGTGG ATTCTACCTT AGTAAGGCAA AGTTATCATT
2701 GGAATTCCT CTAATACAGG AAGGGTGTTC CAGAGACATT AAGGAGCCAT ATAAATGGAA
2761 AATGTCCACT ACAATCCATC ACTTGGTTGC CCCACATCAA CATTCAATCT TTTGCCACAC
2821 TTAAGTTTC CAAGAACAAA AATTATCCCA CTGAACATAA TCTTTACTAT CTTTATATA
2881 AAGGAAAATT AGACTTGACT CAGCAGAACT GAAATAACCC AGCTCTAACA GTTACTGCTT
2941 TTAACCTCAA GTACTGTGTC TCTAGGTGAT ACCTGCTCCA ACAATAGTTT GGTCACATTT
3001 TCAATTTGAT ATTCTCTAGT CTCCAACCTT GATAACTGTA CCCTAAACCA TAAAGTTCAC
3061 TACCAACATG CTATATATAA AATAACCAA GGGGGAAGAA GAAAGAGAAA AAGGAAATCT
3121 CTTAAATAC ACAGGTATAC ATATGACAAA GCAAAGAAGG AAATGTGAGC AGATAGTGCA
3181 GTCCTCGTTT CTGAAATTGG TCCCTGACT GGGGCTATAC CTATTCCATT TCCTCACCTC
3241 CAGCCAGGCA GGTGGAGCAA AAACCTAAGT CTTGGTGGAT CTGAATCTTG ATGCTGTGGA
3301 GCTGTCTTAC TAGCCCCAGA CTACCTGCCT CTCAATTTCT AATTATATCA GTGAAAGCAA
3361 ACAGCTTTGA TTTGTTTAAG CCTCTGATTT TTTGGTCTAA CTGATGTAAG ACCACAAGGA
3421 CAAGAGTTCT CCAGCTCCGG ATTCTCTTCT GTTCTGTAA TGGTGAAATG CCCGAGAGAA
3481 GAGTTGCCAA CTTTGGCAA TAAAAATAC AGGATTCCAG TTAATTCAA ATTTAGATAA
3541 ACAACAATTT TTTAGTATTA GTGTGTCCCA TTCAATATT GGACATACTT AACTAAAAAA
3601 TGATTTGTTG TTCATCTGAA ATACAAATTT AACTGGGCAT TCTGAATATT CTCTGGCAAC
3661 CCCCAGAGAG GTGAAGAAAG TGGTACAAGG AACTTAAGA AGACCAGATT TGAAAGACA
3721 TTACGGATGT GTTTAAATGT CTTATTCTAG AGAGAGTTAG AGCTGTAGGT AGAAGTGGG
3781 AAATTAAGTT AAAAGCAGAC ACAGAGACCT GGCCAATATA TACTAAGGAG TGGATCACTC
3841 TGGTCACAAG CCCAACCTGA GACCAAGGGC ATAGTGAGAT GATTGGGAA AGGCACTTAT
3901 ACACACTCTA TCCCGTCTT TGAATAAAT GCCTTATAA TCTCCAAGAG AAATGACAGT
3961 CCACCATGTG GACTGCTTTC TGTAAGTCCA GGGAAATAA AAGCTATGTG CTTGAAACCC
4021 ACTTCTGATA TTTAAGGTG TGTGATCTTT GTCATGTTAA TGGGTCTGAG TATCAATCT
4081 ACAATTGTAA AGTGACAGTA ATGGTGTGTC CCCAGGTTGT TGTGGAAGC TTGATTCTTA
4141 ATGCAACAGT AGGAAACCCC AGCCTCTCTG GAGCAACAC CTTCTACAT CTTTACTTCC
4201 CCTGCACATT GGCAGGACTC TATTCCTCTA TTTCTCTCTA GTGCTAGAGC AGAAAGGGAC
4261 CTTGATTTGA TATCAGGAAA ATCTATTTCT GAACCATAAG CTATGATAGC TGATTTAAAA
4321 AATTGACTAT CATGACATGA TAATGATCAT AATGGTAATA CATATTGATA GGGTTGCCGT
4381 GAAAGTAATA ATATATCTAA GAGTGTGAC AATATATGAT ACGCCTAGAC TCTCAGAAAA
4441 TGCTAATTC AATCCCAATT GCTCTTTGCA TAAAGTTCTG TCCTAGGCTC TGTCTTTTC
4501 CCACATCTAC CCTCCTTGA TCTCTTCT GTCTTTTCA TGTGGTTCAG AGGAGGAGAG
4561 AGATCCAGGT CAATGTTTT CAAATTACAA GGAATTATCA TTTAAATGGG GAAGAAGCTC
4621 AAGTTTGGAC GTGTAGTGA ATTGGAGTGG AGTGGAGTGG AATGGAACT AACAGGAAGA


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4681 CACTGCACAT GGTAAAGATA AAGATTGTTT CCTGAAACCT TTAATTTGTG CTTACATACT
4741 CACACATACA TATGTGCATG CACTGGGACT CTGCAATATG CATTTCTGAC TATGGAACAT
4801 AGCCATAAAA GTCTTTGCAC TGAACGTTCA GTGGGCCTTT CACAAGCTGC CCTAATTGGG
4861 AAAGAAAAAC ATGGTCCCTC CATTTCTGTC CCCCACCTCC AGAAAAGTCA CCATAGTTGA
4921 GGGTACATCT GAGAAGCCAG CACTTGGGAG TTCAGGGCTC AAGTTCCTTT CTAGAAAAAC
4981 ACTGGGTGAT TCTAGGGGAA CTTCGATCA GAAACAGCCA ATTCAGAGTG AGAGAAGAAA
5041 ACGTGACCAT GCAGTTCCTG TGGTTACCAG CCTTGCCCCT CTCTTGCTT CTGGGAGTTA
5101 TAAAACCCAA GACTGGAAAG GAAAACCAGC ATTTGCTCAG GCAGCCTCTC TGGGAAGATG
5161 CTGCTTCTTC CTCTCCCCCT GCTGCTCTT CTCTGTGCT CCAGAGCTGA AGCTGGTGAG
5221 TATCAGGGTT CTTCCTCTG AAATCTGCAG TATCAGCTCC TGAAACAAAG ATGTTTAGTC
5281 TGAAATAGCT GACTCCTAAA CAGGGTTCCA AGATCTCTCT TCAAGAGTCC CACAGAGGAA
5341 ATTTCCACTT GGGATGTGTG CCACCCACC CCCACCCCA CCCACTGCCA TTCTCTACAG
5401 CCTAGGACAC CCCCAGGAAC AAGGAATTTC ACCTCAATTG TAGAAAAGCC CAGAGCAAGT
5461 GGAAGGAAAA GGGGTATCCC CAGGAAAACA GACATGTCCT CTTAATCTTC TGAGCATCAG
5521 GGCTACCCAT TACTTTGTGA CTTTCTCACT CTGTGACCAT GCTCAAGAGC TATGGAGAAA
5581 TCTAAAACAG GAACCTGGAC AGTGGGTCTT ACACAGAGAC AGAGGAGAGT GGGCCAGGGC
5641 AAGGTGGGAG TGGGAGAAGT CTGAGATGAA AACATCAGAA TGGAGCAGAG GCAAGAATGA
5701 GATTTACCTT GGGAGGTTAT GGGTGGGAA AGATACGAAA TACAGGAGAC AGGAGAGGAA
5761 AGATGGGCGG AACACAGGGT GAGAATGAGA TTCCAGGGAA GCCTAGCTCA GCTTTAACCC
5821 AATTTGTCCA TTCATTGGAG AGAGTATCTA TGGCCGTGTT CAAACCTGG GGTGCTCTGT
5881 TCCAGGGGAG ATCATCGGGG GCACAGAATG CAAGCCACAT TCCCGCCCCT ACATGGCCTA
5941 CCTGGAATTT GTAACCTCCA ACGGTCCCTC AAAATTTTGT GGTGGTTTCC TTATAAGACG
6001 GAACCTTGTTG CTGACGGCTG CTCATTGTGC AGGAAGGTGA GACAACAGGG TCTATTTATC
6061 TCCAAATGGG AGATGAACAA CCAGAGTAGC ATCCAGGAAT ACACCTGCAC TGGGGACTGA
6121 AGAGGGGGTC CTGGGCTTG TCAACTTTCA GGAGAGGAA GACTTTGGGC TGAAGACTT
6181 TAGTCTGTGT TTGAATAGTT CTTTGAGCCT CAGTCACTGA GCTAAGCTCC CTTGCGAGGA
6241 AAAGGAGGTC CTGTCCGAAG GTCCCTCTTG TTGCAGTAGC ACCCCTCACC CCTACCCAAC
6301 TCAAGACACA CGGCTCACTT TTCAGGGCCC CACCCAGTCT CAGGGCCACT TCCTCTATGG
6361 CCTTTTCAAG AACACTGGCT CTAGTTCTCA GGGTCTGAA CCCATCATTT TATGGGAGCA
6421 GAGAACAGGT CTACATAAGA CCCCACCTTT CCCGTTTTAA CTGATATCTC CTGCTTCAGG
6481 GGCTGGCCCT CATGCAGGT TCCCTGAAT AGGAAGTGTG AACCCTGTCC CCTGAGTCTT
6541 CCCTGGCCTG TTCAGTCCCC AGCAATTCCA GGGGTCTGAG AAATGTGTG TGTTCCTGA
6601 GAAAGCTCTT TCATGAGTTA AGCCTGAGCC CTCAAATGCC ACAAGTGGCC CATGAAAAGG
6661 GAGATGGGTA GAGTCCGGCN ACCCAGTGAC AGAGTTTAGT CCTCTTTTCT CAGAATGAGC
6721 TCACCTCAGA AGAAACCCCA AGCCATCACT GTCGCCTCCT TTTCTTCCCT TCTTCCTCAC
6781 AGCAGGTCTA TAACAGTCAC CCTTGAGGCC CATAACATAA CAGAGGAAGA AGACACATGG
6841 CAGAAGCTTG AGGTTATAAA GCAATTCGGT CATCCAAAT ATAACACTTC TACTCTTCAC
6901 CAGGATATCA TGTTACTAAA GGTGACAACA CCTCTCTCT CCCTTTCCAC TTCCCATTCT
6961 CCTAAGCTTC TCCTTCAGGT CCTCATTGCC CTGAATTTT CTTAGGACTT GGCTATAACA
7021 TGAAGCTACT CACCCTGTCC CTCCCTGATC ACCTCCAAC GTCCAGAGCC CATTTGAGG
7081 ACTGACAGTC CTTCAATCCC TTCACAGTTG AAGGAGAAAG CCAGCCTGAC CCTGGCTGTG
7141 GGGACACTCC CTTCCCATC ACAATTCAAC TTTGTCCAC CTGGGAGAAT GTGCCGGGTG
7201 GCTGGCTGGG GAAGAACAGG TGTGTTGAAG CCGGGCTCAG ACACTCTGCA AGAGGTGAAG
7261 CTGAGACTCA TGGATCCCCA GGCCTGCAG CACTTCAGAG ACTTTGACCA CAATCTTCAG
7321 CTGTGTGTGG GCAATCCAG GAAGACAAAA TCTGCATTTA AGGTGATCCT CCAACTAGGT
7381 TTCCTCTCCA AAACCTCACTG TTCAGGGACC TGAATGCTCT TAGAAGGAGA TGGGGTCAGC
7441 AGGTTGTGAG TCAGGTGACA GGGTGAGCAT CACAGGAATT GCTGTCTTCC CGTGGTCCAA
7501 GACAGCCTCT GACCATCCAT TCCAGTCTAC TGCAGTGGG GCATGGGGTG ACTGTGAGAG
7561 ATGTGGATGA CGGTCCCAAG AAAGGAAGAA GGGGCATCAG AACTAGATGT ATAAGTGAGG
7621 AGCTCCACCT CCTGGGTCTG ACTTTAGGTC TCACTGTGAC TCCAAGCTGG CTGGCAGACA
7681 GGAGTGGAGG ACTTCCGGG CTCACCTTCT TCTCTCTCT CTCCCCTAC AGGGAGACTC
7741 TGGGGGCCCT CTTCTGTGTG CTGGGGTGGC CCAGGGCATC GTATCCTATG GACGGTCGGA
7801 TGCAAAGCCC CCTGCTGTCT TCACCCGAAT CTCCCATAC CGGCCCTGGA TCAACCAGAT
7861 CCTGCAGGCA AATTAATCCT GGATCCTGAG CCAGCCTGAA GGAAGCTGG AACTGGACCT
7921 TAGCAGCAAA GTGTGTGCAA CTCATTCTGG TTCTACCCTT GGTTCCTCA GCCACAACCC
7981 TAAGCCTCCA AGAGGTCTCC TACAGGTAAC AGAATTTCA ATAACTTCA GTGAAGACAC
8041 AGCTTCTAGT CGTGAGTGTG TGTCCCTCTC TGCTGCTCTC TTCTCTGCA CATGTGACCT
8101 GATTCCCAGC CCAAGCACCA AGGA

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(2) INFORMATION FOR SEQ ID NO:2468:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 661 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2468:

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1 ATCATCGGG GCACAGAATC CAAGCCACAT TCCCGCCCCT ACATGGCCTA CCTGGAATTT
61 GTAACCTTCCA ACGGTCCCTC AAAATTTTGT GGTGGTTTCC TTATAAGACG GAACCTTGTG
121 CTGACGGCTG CTCATTGTGC AGGAAGGTCT ATAACAGTCA CCCTTGGAGC CCATAACATA

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181 ACAGAGGAAG AAGACACATG GCAGAAGCTT GAGGTTATAA AGCAATTCCG TCATCCAAAA
241 TATAACACTT CTACTCTTCA CCACGATATC ATGTTACTAA AGTTGAAGGA GAAAGCCAGC
301 CTGACCCTGG CTGTGGGGAC ACTCCCTTC CCATCACAAT TCAACTTTGT CCCACCTGGG
361 AGAATGTGCC GGGTGGCTGG CTGGGGAAGA ACAGGTGTGT TGAAGCCGGG CTCAGACACT
421 CTGCAAGAGG TGAAGCTGAG ACTCATGGAT CCCAGGCCCT GCAGCCACTT CAGAGACTTT
481 GACCACAATC TTCAGCTGTG TGTGGGCAAT CCCAGGAAGA CAAAATCTGC ATTTAAGGGA
541 GACTCTGGGG GCCCTCTTCT GTGTGCTGGG GTGGCCAGG GCATCGTATC CTATGGACGG
601 TCGGATGCAA AGCCCCCTGC TGTCTTCACC CGAATCTCCC ATTACCGGCC CTGGATCAAC
661 CAGATCCTGC AGGCAAATTA A

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(2) INFORMATION FOR SEQ ID NO:2469:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1261 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2469:

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1 GCCACCATGG AAACCCTTTG CCTCAGGGCA TCCTTTTGGC TGGCACTGGT TGGATGTGTA
61 ATCAGTGATA ATCCTGAGAG ATACAGCACA AATCTAAGCA ATCATGTGGA TGATTTACC
121 ACTTTTCGTG GCACAGAGCT CAGCTTCCTG GTTACCCTC ATCAACCCAC TAATTTGGTC
181 CTACCCAGCA ATGGCTCAAT GCACAATAT TGCCACAGC AGACTAAAT TACTTCAGCT
241 TTCAAATACA TTAACACTGT GATATCTTGT ACTATTTTCA TCGTGGGAAT GGTGGGGAAT
301 GCAACTCTGC TCAGGATCAT TTACCAGAAC AAATGTATGA GGAATGGCCC CAACGCGCTG
361 ATAGCCAGTC TTGCCCTTGG AGACCTTATC TATGTGGTCA TTGATCTCCC TATCAATGTA
421 TTTAAGCTGC TGGCTGGGCG CTGGCCTTTT GATCACAATG ACTTTGGCGT ATTTCTTTGC
481 AAGCTGTTC CTTTTTGGCA GAAGTCCTCG GTGGGGATCA CCGTCCTCAA CCTCTGCGCT
541 CTTAGTGTG ACAGGTACAG AGCAGTTGCC TCCTGGAGTC GTGTTCAAGG AATTGGGATT
601 CCTTTGGTAA CTGCCATTGA AATTGCCTCC ATCTGGATCC TGTCCTTTAT CCTGGCCATT
661 CCTGAAGCGA TTGGCTTCGT CATGGTACCC TTTGAATATA GGGGTGGACA GCATAAAACC
721 TGTATGCTCA ATGCCACATC AAAATTCATG GAGTTCTACC AAGATGTAA GGACTGGTGG
781 CTCTTCGGGT TCTATTCTG TATGCCCTTG GTGTGCACTG CGATCTTCTA CACCCTCATG
841 ACTGGTGAGA TGTTGAACAG AAGGAATGGC AGCTTGAGAA TTGCCCTCAG TGAACATCTT
901 AAGCAGCGTC GAGAAGTGGC AAAAACAGTT TTCTGCTTGG TTGTAATTTT TGCTCTTTGC
961 TGGTTCCCTC TTCATTTAAG CCGTATATTG AAGAAAAGTG TGTATAACGA GATGGACAAG
1021 AACCGATGTG AATTACTTAG TTTCTTACTG CTCATGGATT ACATCGGTAT TAACCTGGCA
1081 ACCATGAATT CATGTATAAA CCCCATAGCT CTGTATTTTG TGAGCAAGAA ATTTAAAAAT
1141 TGTTTCCAGT CATGCCTCTG CTGCTGCTGT TACCAGTCCA AAAGTCTGAT GACCTCGGTC
1201 CCCATGAACG GAACAAGCAT CCAGTGGAG AACCACGATC AAAACAACCA CAACACAGAC
1261 CGGAGCAGCC ATAAGGACAG CATGAATGTA CCACCCTTAG AAGCACTCCT

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(2) INFORMATION FOR SEQ ID NO:2470:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1861 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2470:

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1 GAATTCGGGA AAAAGTGAAG GTGTAAAGC AGCACAAGTG CAATAAGAGA TATTTCTCTA
61 AATTGGCTC AAGATGGAAA CCCTTTGCC T CAGGGCATCC TTTTGGCTGG CACTGGTTGG
121 ATGTGTAATC AGTGATAATC CTGAGAGATA CAGCACAAT CTAAGCAATC ATGTGGATGA
181 TTTCCCACT TTTCTGGGCA CAGAGCTCAG TTCCTGGTT ACCACTCATC AACCCTACTA
241 TTTGGTCTTA CCCAGCAATG GCTCAATGCA CAACTATTGC CCACAGCAGA CTAATAATTAC
301 TTCAGCTTTC AAATACATTA ACACTGTGAT ATCTTGTAAT ATTTTCATCG TGGGAATGGT
361 GGGGAATGCA ACTCTGCTCA GGATCATTTA CCAGAACAAA TGTATGAGGA ATGGCCCCAA
421 CGCGCTGATA GCCAGTCTTG CCCTTGAGA CCTTATCTAT GTGGTCATTG ATCTCCCTAT
481 CAATGTATTT AAGCTGCTGG CTGGGCGCTG GCCTTTTGAT CACAATGACT TTGGCGTATT
541 TCTTTGCAAG CTGTTCCCT TTTTGAGAA GTCTCGGTG GGGATCACCG TCCTCAACCT
601 CTGCGCTCTT AGTGTGACA GGTACAGAGC AGTTGCCTCC TGGAGTCGTG TTCAGGGAAT
661 TGGGATTCTT TTGGTAACTG CCATTGAAAT TGTCTCCATC TGGATCCTGT CCTTTATCCT
721 GGCCATTCTT GAAGCGATTG GCTTCGTCAT GGTACCCTTT GAATATAGGG GTGAACAGCA
781 TAAACCTGT ATGCTCAATG CCACATCAAA ATTCATGGAG TTCTACCAAG ATGTAAAGGA
841 CTGGTGGCTC TTCGGGTTCT ATTTCTGTAT GCCCTTGGTG TGCATGCGA TCTTCTACAC
901 CCTCATGACT TGTGAGATGT TGAACAGAAG GAATGGCAGC TTGAGAATTG CCCTCAGTGA
961 ACATCTTAAG CAGCGTCGAG AAGTGGCAAA AACAGTTTTT TGCTTGGTTG TAATTTTGGC
1021 TCTTTGCTGG TTCCCTCTTC ATTTAAGCCG TATATTGAAG AAAACTGTGT ATAACGAGAT
1081 GGACAAGAAC CGATGTGAAT TACTTAGTTT CTTACTGCTC ATGGATTACA TCGGTATTAA
1141 CTTGGCAACC ATGAATTCAT GTATAAACC CATAGCTCTG TATTTTGTGA GCAAGAAATT
1201 TAAAAATTGT TTCCAGTCAT GCCTCTGCTG CTGCTGTTAC CAGTCCAAAA GTCTGATGAC
1261 CTCGGTCCCC ATGAACGGAA CAAGCATCCA GTGGAAGAAC CACGATCAAA ACAACCACAA

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1321 CACAGACCGG AGCAGCCATA AGGACAGCAT GAACTGACCA CCCTTAGAAG CACTCCTCGG
 1381 TACTCCCATA ATCCTCTCGG AGAAAAAAT CACAAGGCAA CTGTGAGTCC GGGAACTCTT
 1441 TCTCTGATCC TTCTTCCTTA ATTCACTCCC ACACCCAAGA AGAAATGCTT TCCAAAACCG
 1501 CAAGGGTAGA CTGGTTATC CACCCACAAC ATCTACGAAT CGTACTTCTT TAATTGATCT
 1561 AATTTACATA TTCTGCGTGT TGTATTGAGC ACTAAAAAT GGTGGGAGCT GGGGGAGAAT
 1621 GAAGACTGTT AAATGAAACC AGAAGGATAT TTACTACTTT TGCATGAAAA TAGAGCTTTC
 1681 AAGTACATGG CTAGCTTTTA TGGCAGTTCT GGTGAATGTT CAATGGGAAC TGGTCACCAT
 1741 GAACTTTAG AGATTAACGA CAAGATTTTC TACTTTTTTT AAGTGATTTT TTTGCTCTTC
 1801 AGCCAAACAC AATATGGGCT CAAGTCACTT TTATTGAAA TGTCATTTGG TGCCAGTATC
 1861 CCGAATTC

(2) INFORMATION FOR SEQ ID NO:2471:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2471:

TACCACTCCA	AAAGTCTGAT	GACCTCGGTC	CCCATGAACG	GAACAAGCAT	CCAGTGAAG	AACCACGATC
AAAACAACCA	CAACACAGAC	CGGAGCAGCC	ATAAGGACAG	CATGAACTGA	CCACCCCTTAG	AAGCACTCCT
GAATTCGGGA	AAAAGTGAAG	GTGTAAAGC	AGCACAAGTG	CAATAAGAGA	TATTTCTCTA	AATTTGCCTC
AAGATGGAAA	CCCTTTGCCT	CAGGGCATCC	TTTTGGCTGG	CAGTGGTTGG	ATGTGTAATC	AGTGATAATC
CTGAGAGATA	CAGCACAAT	CTAAGCAATC	ATGTGGATGA	TTTCACCACT	TTTCGTGGCA	CAGAGCTCAG
CTTCTGGTT	ACCACTCATC	AACCCACTAA	TTTGGTCCTA	CCCAGCAATG	GCTCAATGCA	CAACTATTGC
CCACAGCAGA	CTAAAATTAC	TTCAGCTTTC	AAATACATTA	ACACTGTGAT	ATCTTGTACT	ATTTTCATCG
TGGGAATGGT	GGGGAATGCA	ACTCTGCTCA	GGATCATTTA	CCAGAACAAA	TGTATGAGGA	ATGGCCCCAA
CGCGCTGATA	GCCAGTCTTG	CCCTTGGAGA	CCTTATCTAT	GTGGTCATTG	ATCTCCCTAT	CAATGTATTT
AAGCTGCTGG	CTGGGCGCTG	GCCTTTTGAT	CACAATGACT	TTGGCGTATT	TCTTTGCAAG	CTGTTCCCCCT
TTTTGTCAGAA	TCTCTCGGTG	GGGATCACCG	TCTTCAACCT	CTGCGCTCTT	AGTGTGACA	GGTACAGAGC
AGTTGCCTCC	TGGAGTCGTG	TTCAGGGAAT	TGGGATTCCT	TTGGTAACTG	CCATTGAAAT	TGTCTCCATC
TGGATCCTGT	CCTTTATCCT	GGCCATTCTT	GAAGCGATTG	GCTTCGTCAT	GGTACCCTTT	GAATATAGGG
GTGAACAGCA	TAAACCTGT	ATGCTCAATG	CCACATCAAA	ATTCATGGAG	TTCTACCAAG	ATGTAAAGGA
CTGGTGGCTC	TTCCGGTTCT	ATTTCTGTAT	GCCCTTGGTG	TGCACTGCGA	TCTTCTACAC	CCTCATGACT
TGTGAGATGT	TGAACAGAAG	GAATGGCAGC	TTGAGAATTG	CCCTCAGTGA	ACATCTTAAG	CAGCGTCGAG
AAGTGGCAAA	AACAGTTTTC	TGCTTGGTTG	TAATTTTTCG	TCTTTGCTGG	TTCCCTCTTC	ATTTAAGCCG
TATATTGAAG	AAAACCTGTG	ATAACGAGAT	GGACAAGAAC	CGATGTGAAT	TACTTAGTTT	CTTACTGCTC
ATGGATTACA	TCGGTATTAA	CTTGGCAACC	ATGAATTCAT	GTATAAACCC	CATAGCTCTG	TATTTTGTGA
GCAAGAAATT	TAAAAATTGT	TTCCAGTCAT	GCCTCTGCTG	CTGCTGTTAC	CAGTCCAAAA	GTCTGATGAC
CTCGTCCCCC	ATGAACGGAA	CAAGCATCCA	GTGGAAGAAC	CACGATCAAA	ACAACCACAA	CACAGACCGG
AGCAGCCATA	AGGACAGCAT	GAACTGACCA	CCCTTAGAAG	CACTCCTCGG	TACTCCCATA	ATCCTCTCGG
AGAAAAAAT	CACAAGGCAA	CTGTGAGTCC	GGGAATCTCT	TCTCTGATCC	TTCTTCTTAA	ATTCACCTCC
ACACCCAAGA	AGAAATGCTT	TCCAAAACCG	CAAGGGTAGA	CTGGTTTATC	CACCCACAAC	ATCTACGAAT
CGTACTTCTT	TAATTGATCT	AATTTACATA	TTCTGCGTGT	TGTATTGAGC	ACTAAAAAAT	GGTGGGAGCT
GGGGGAGAAT	GAAGACTGTT	AAATGAAACC	AGAAGGATAT	TTACTACTTT	TGCATGAAAA	TAGAGCTTTC
AAGTACATGG	CTAGCTTTTA	TGGCAGTTCT	GGTGAATGTT	CAATGGGAAC	TGGTCACCAT	GAACTTTAG
AGATTAACGA	CAAGATTTTC	TACTTTTTTT	AAGTGATTTT	TTTGTCTTTC	AGCCAAACAC	AATATGGGCT
CAAGTCACTT	TTATTGAAA	TGTCATTTGG	TGCCAGTATC	CCGAATTC		

(2) INFORMATION FOR SEQ ID NO:2472:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2472:

1 GCTCAGCCTC CAAAGGAGCC AGCCTCTCCC CAGTTCTGTA AATCCTGAGT GTTGCCTGCC
 61 AGTCGCCATG AGAACTTCTT ACCTTCTGCT GTTACTCTC TGCTTACTTT TGTCTGAGAT
 121 GGCCTCAGGT GGTAACCTTC TCACAGGCCT TGGCCACAGA TCTGATCATT ACAATTGCGT
 181 CAGCAGTGGA GGGCAATGTC TCTATTCTGC CTGCCCGATC TTTACCAAAA TTCAAGGCAC
 241 CTGTTACAGA GGGGAAGGCCA AGTGCTGCAA GTGAGCTGGG AGTGACCAGA AGAAATGACG
 301 CAGAAGTGAA ATGAACCTTT TATAAGCATT CTTTAAATAA AGGAAAATTG CTTTGAAGT
 361 AT

(2) INFORMATION FOR SEQ ID NO:2473:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4621 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2473:

1 ATCCTTTAAG TCAATGGACT TTGCATCAGT CACACCATCT TTTGTTACTT TGGACTTCCC
61 CAGCTATGTT CAATAATTAC TGTCTTCCC TTGGGCCCCA TTGTAATGGC TACAGCCTCG
121 AAAAAAGTC TACACTTTGA AGCATTAAAG CTCCGACATC AGCACCAGAT TTTACATCTT
181 TACCATCACT TCAAGTGAGG TGAGGAGCCA GTAGCCTGGA CACTGGTCTC ATCTGGTGAA
241 AGACTGTGGG TAATGGAAGC ATTTCTGTGG GGTGCTGGCA GGACATGTGC ATGGCGAGGC
301 AGGTCATCAG CAGCAAGTGA GAGCTGCCTC TTACTTTCTA AAGGTGACAT AGCAATATA
361 CAAAAAATAA TAAATAAATT ATTAATTTAG GTAGAGCACA TAAAGGCTTT ATTTCAATAT
421 CCATTTCTCT GTATGCTTTC TTCACCAGGA AGAAATAGTT TTAGTGTGAG GAATGAATGA
481 GTCTGCCCTC CAATTCCAGC CTGCTCAACA CACAAGGAAA CAAAGCCTCG ACAATCAGAG
541 TGAATCCCTG GTGACTAAGC TCCAGTCCT GGATGCATAT TTGTTTAGCA GTTCTGACAG
601 CATTGACCC AGCCCTCTCT CTGCATATCC CATCAGAACC TTCTTTTTTT TTTTTTCTT
661 TGAGACTGAG TCTTGCTCTG TCGGAAGCGA CTCTGTGACC TCAGCCTCCC AAATACCTGG
721 AATTATAGGC GTAAGCCATC ATGCCTGGCT AATTTTTGTA TTTTTCATGG AGATGGGTT
781 TTGCCATGTT GGTCAAATTG GTCTCACACT CCTGACCTCA TGTGATCCAC CTGCTCAGC
841 CTCCCAAACCT GCTGGGATGA CAGGTGTAAG CCACCATGCT AGGCTCAGAA ATTTCTTTT
901 ATAAAAATGT CATTAAGGAT CTTGGCTGCA CAATATCGTT ACCAGCTTCC TTTAAATCCA
961 CTTCTGGCCT GCCAGGAATC AGGTTCTTCA GAACCTGACA TTTTAAATGA AGAGGTCAGG
1021 CAGTTTCATGA GGAAAGCCTC ATTGTCCCCA TGTCTCTGTC ACTGCTGCAC CCCTGAGACA
1081 TCACAGACAT GGACACTGGG GCCTGCTTGT TTCTCAAACCT GCCCTTAGAT CGAAAGAGGG
1141 AGGAACCAGG ATGAATGCCA CTCATTTTCC CAAGAAAGGC CCTCTCCTGA GTGCCCCGGA
1201 TGGGGCTCTG TCCATTGCCT GGGGCCGCCA ATTGCTACTC TGGGTTACGG AGGAAGGACA
1261 GGGTCTCTAG AGACACCAGA GACCTCACAC AGCCCTGAAA ACATGGGGCT CCTTCATAAG
1321 TGTTTCCCAT CACCAACAGG GAGACCACGT GGAGGCCTTG CAGCCCCACT CGGTGCTTCT
1381 CCACCAATC CCAAGGGCAG TGACGCTGAC GTCTGTGGAA AGCAGAGAAA GCCCTGGCTC
1441 CCAAAGCCCT GAAGTCCCTG TGGAGCTGAC ATTCCTGAG TGACGGTGTG AATGGAAGGA
1501 ACTCAAGTGC GGGTGGTAGG CCACCTCCTG GCCCAGGCCT GGGTGAACCT TGAGGGGACA
1561 CATGTAGTCA CAATCCCATC CTCCCATTCT CCTTCTCAGA GGAAGGAAGT GGGCATCCAT
1621 CTGCTCATC TCTCTCCCGT GGGGAAGATG GGGAGTTTCA GGGGAACCTT CACATAAAT
1681 TCACCAGCTC AGATCTCCTG TGAGGATGGG GCCCACCATG CTCCCGGTGC TGCCAGAGGC
1741 CTGAGCCCC TCCCAGGGTC CCTGGGTTTG AGCCAGCCCT GTATCATCCC CAGGAGCTGA
1801 ATGTCAGAGC AATGGATAGA ATTAGATGGA AAGAGCTCTC AATTTGACCT GAGACTGTCC
1861 CCAGATACTC AGGAAAAACA GGACGTCGCA CAGAGTGGGC AGCAGGTGAG TGGCAGGTTA
1921 TAGGTCCTGA GTTTGAGTTT GTTCTCACGT GAGACAGACC CAGCCCCCTCA CTCCATTAC
1981 AACTGGGTT TTAATGGTG CAAGATAGGA GCAATTTTCT GGTCCCAAGA GCAGGAGGAA
2041 GGGATTTTCT GGGGTTTCTT GAGTCCAGAT TTGCATAAGA TCTCCTGAGT GTGCATTGTT
2101 CTTTGAGGAC CATTCTCTGA CTCACCAGGT AAGTGCTGTA ATTCTAACCT CTGTAATGAG
2161 CATTGCACCC AATACCAGTT CTGAACTCTA CCTGGTGACC AGGGACCAGG ACCTTTATAA
2221 GGTGGAAGGC TTGATGTCTT CCCCAGACTC AGCTCCTGGT GAAGCTCCCA GCCATCAGCC
2281 ATGAGGGTCT TGTATCTCCT CTCTCGTTC CTCTTCATAT TCCTGATGCC TCTTCCAGGT
2341 GAGATGGGCC AGGGAAATAG GAGGTTGGC CAAATGGAAG AATGGCGTAG AAGTTCTCTG
2401 TCTCCTCTCA TTCCCCTCCA CCTATCTCTC CCTCATCCCT CTCTCTCCTT CCTCTCTCTG
2461 TGTGTCCCTT CCATCCTTTT CTCTGCTTC TCTCTCTTCT TCCCTCTCTC TCTTTTTTCT
2521 GTCTTTCTTT TTCTCTCTC CTAGAGCAT GTCTTTCTTT CTTTCTCTTT CTTTCTTCT
2581 ACCCACACTT TTAGACTGAA TGCCCTATTT AATTGAACAA AGCATTGCTT CTTCAATAG
2641 AAAAGGAGTT TGAGAACCCA ATGGACACCT CACTCGTTCT TCTAAGCCAA TATGAAGGAG
2701 CCCAGTAGCT TGTAATATC ATCTCTTCCG TGCTTTCCAT GCTACAACCTG CTGAGACTAT
2761 GGTGGAACCT TGTTAGGTGA CTTTAAAT AAAAGGCAGA AATTTTGATT TTATCTAAAG
2821 AAAGTAGTAT AGAATGTCAT TTTCTAAAT TTTATATTTA AAGGGTAGAT ACTGCAACCT
2881 AGAGAATTCC AGATAATCTT AAGGCCAGC CTATACTGTG AGAACTACTG CAGCAAGACA
2941 CTCTGCCCTC AGGACTTTTC TGATCAGAG CCCTGAGAAC AGTCCCCTGC ACTAGGCCAC
3001 TGCAGGTTCA CAGGACAGGG TACAGCCCAT TGAAACCTAC TTTTAAACCT GGATGCCTAA
3061 CCTTCATTTT CTCCTTGATA TTATGAAAT AAAATAAAAA CCATGAAAGG ATAAAAGAGG
3121 GAGAGTGGAA GGAAGGATG GAGAAAGGGA AAAAGAAAT TTGAGAGTAA ATCCTAAAC
3181 AATTAATCTA ATAGATATCA TCTTGTGAAA TCCTCATTTT ACCAATCTTA TTTATGAGTC
3241 CTGGGTTTTG TGAGAACAAT GGGGTTCTGA GAGGCACCAG AGACCTCATG TTTTCCAAAA
3301 CCTAGAACAG TATAATGAAG GAAGGCGGGG AGGCAGGGAG GCAGGGAGGC AGGGAGGCAG
3361 GGAGGCGGGC AGGTGGGGAG GGAGGGACGG AAGGAGGGAG GGAGGGAGGC AGGGAGGGAG
3421 GGAGGGATAA AAAAGAAGA ATGAGGTTGA AACCAGGACT TAGATATTAG AAACAAGCCA
3481 TTACAAAATT TATTCTATG GTTAATTGTG GTTTTCAACT GTAAGTTACT TGGTGTAAAT
3541 TTTCTATTA ACAATTTTCA TAAGTTGCAT CTTTATATCC CATCTCAGGT CAAATACTTA
3601 ACAGACTAAA TGATTTGAAA AAGCAAAAGT TTAAGTGGCT GTGTGTGTTA AAATGGAGGT
3661 ATGGTGGCTT TGATATTATC TTCTTGTGGT GGAGCTGAAT TCACAAGAGA TCGTTGCTGA
3721 GTCCTACCA GACCCACCT GGAGGCCCCA GTCACTCAGG AGAGATCAGG GTCTTTCACA
3781 ATCAGTTTCT ACAAATAA ACATCCCCC AACCACAGCA GTGCCAGTTT CCATGTCAGA
3841 AACTTAGATC CAAATGACTG ACTCGCTCT CATTATCATG ATGGAAGAGC CCAGGCTTGA
3901 GAAAGAAGCC CGCTGCGGAT TTAAGTCAAG CGATACTGAC ACAGGGTTTG TGTTTTTTCA
3961 ACATGAGTTT TGAGTTCTTA CACGCTGTTT GCTCTTTTGT TGTGTTTTTT CCCTGTTAGG
4021 TGTTTTTGGT GGTATAGGCG ATCCTGTTAC CTGCCCTAAG AGTGAGGCA TATGTCATCC

4081 AGTCTTTTGC CCTAGAAGGT ATAAACAAAT TGGCACCTGT GGTCTCCCTG GAACAAAATG
 4141 CTGCAAAAAG CCATGAGGAG GCCAAGAAGC TGCTGTGGCT GATGCGGATT CAGAAAGGGC
 4201 TCCCTCATCA GAGACGTGCG ACATGTAAAC CAAATTAAAC TATGGTGTCC AAAGATACGC
 4261 AATCTTTATC CTAGTAATTG TGGTCATTGG GTGATGTTGG TTTGGGCAGG CCATCTCTAA
 4321 TATCCTTGAA ACACCTTTTT CTGCTCTCCA GGAAGGGGTC AGGGCTGCCA CAGCGGGGCT
 4381 TGGAGTGCTT TCCAGGGTCA CAGGCATCTG TATTCTTTGG ATTCTTTGAC CTTCCCATTT
 4441 TATTCCCGGC ATTTTCCTAA AACGTGTGCT TTGCTCCTCC TGCATCCTCC CTTTGCATGC
 4501 CCTCACCTAC CCCACATCTT CCCTAAAAAA AGCAAGCCCA ACTCAAAGAC CAGTTCCCTC
 4561 ATGGAATCAT AGTGGATCTG CCAAGGGAGG GGATGCCAG TCCTCTGTTC TTCACAAGAC
 4621 TCCCTTCTTC TGGCTAAGGT TTCTTATGCA ATTAT

(2) INFORMATION FOR SEQ ID NO:2474:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1981 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2474:

1 CTGCAAGTGGT AAAAAGATTC TATATCTGCT GTTTGATGAA TGCAGCACCC ACTAGCCACA
 61 TAGTGCTCGT GAGCACTTGC AATGCGGCTA GGGTGATTTC AATTAACCTA AAAGAGAAACA
 121 GCCACAGGGA GCATGTGGCT GCCATATTGG ATGGTGTCTG TTTGAGAACA AAATGAGAGA
 181 AATGAAGCCT CTATTTACCT TGGTTGGCGG AACACATTGA AGGGACTCTG TATTGATACC
 241 AGGCTTCAAA CTTTGGGAAG TGTACTGGCC AACTTAAACA CATCCACAGG AGAATGAAGA
 301 GGTTTGGGAA GGGACCAGAA ACCAGGCATT GAGGACAATG AGAAGAGTTT TTCAAAGTG
 361 GAATTACTGC AAAAAGTGGA AAAATAGCCT TTGGATGGAA GTTACTGATG AGACAATTTT
 421 CATCGGTGTG AAAGCCATCT TTCCAACAGA GATCTGCAAC ATGAGAATGT ACTGTCTCCT
 481 AGGGTAGCGA TGGCCTCTTG TATTAGTCCG CTCAGGCTAC CAGATTTATC GTTTAAACTG
 541 CCCATAAACA GACCAGGCAG TTAAACAAC AGAAATTTAT TTCCTCGCAG TCCTGGAGGC
 601 AGGAAGTCTG CGATCAAGGT GGAAGCAGGG TTGGCTTCTT CTCAGGTGTC TGTCCTTGGC
 661 TGGTAGATGA CCGCCGCCCT CCTGGGTCTT CACATGGTCT TTCTCTGTG TGCTGTCTGC
 721 CCAATCTCTT CTTATAAGGA TGCAAGTCTT ATGGATCAGA GCACACCCCA ATGACCGTGT
 781 TTAACCTTGA TCACCTCTTT AAAGTTTCTC TCTCCAAATA CAATCACCTC CTGAGGCACT
 841 GTTAGGGCTT CGACACAGGA ATTCTTTTCC TAGGGGATTC AGTTCAGTCC AAAACGCCTA
 901 CCAGTGGAGA CTTGCAACAT GCGCGCCTGC TGGTCCCCTG CCAGGAATAT CACAGGCGAC
 961 TGTTCCTGTG TGCATGGAAT AGAAGGCTAT TCCAGAGTAC TGTCTCTATT TATCAGATCT
 1021 GGGATACTGG GAGAAGGGCA AAATAAAGTC CAAGTAGAAA AAAAACTAT GAAAGTTTAA
 1081 GAGAGTAACC ATAATTTTCA CCCGATGTGA AACGATCCTA GATTTAGCTT GAAATAGTGA
 1141 TGTGGGAAGT GAGGGGGCCG GGATTCAAGG CAGAGGGAAC AGCGTAACCT AAGGCATGGA
 1201 AGGAGGGAAG TGTAGGCTGT GTTGAAGAG TGGCAGCTGC TTCCACATTT CTAAACACACA
 1261 GGATGTGATT TTGGGGTGTG TTGAGACAAG GCAGAAAACCT TGTTTGGAAA AATAACTTGA
 1321 ATTCCTTGCA CATTAAAAAT CTCTCAGCAG AAGAAAACCC CACTCAGAAC CCCACTGTTC
 1381 ATTCCTTGGC TTGTATTTGG SCACAGCTGG CATAGCCCCA GACTGAGTAA GCTCTTCAGA
 1441 CACCTCATT CATGAGTAGC CCCAAAGATC AATCATGGGC CAATTTCTTG GAAGAGAAGA
 1501 CTCTCCGGTG TTTTGCAGTT ATTTGTTCTG CTTTCGCGAG ATGTTCTCAA ATCGTTGCAG
 1561 CTACAAGCCA TGAGTCTGAA GTGTTTGTGT TCCCTCCTTA CAGGTGGTAA CTTTCTCACA
 1621 GGCCTTGGCC ACAGATCTGA TCATTACAAT TGCGTCAGCA GTGGAGGGCA ATGTCTCTAT
 1681 TCTGCCTGCC CGATCTTTAC CAAAATTCAA GGCACCTGTT ACAGAGGGAA GGCCAAGTGC
 1741 TGCAAGTGAG CTGAGAGTGA CCAGAAGAAA TGACGCAGAA GTGAAATGAA CTTTTTATAA
 1801 GCATTCTTTT AATAAAGGAA AATTGCTTTT GAAGTATACC TCCTTTGGGC CAAAATGAAT
 1861 CTTGTGCTC AATTGGAAGA GGTAAAGAAG TAGGGGGTTA GGGTGCATGG GTTGAACGT
 1921 GAGACAGGTC GAACCACAAA GCCTGCCTGG AAAAGGGGAG TGACGTCCTA GGCTTCAGTG
 1981 ATGTCACCTC CACTTGTGTT GATCCACAAA CCAACAGGTG ACTGATTTTG

(2) INFORMATION FOR SEQ ID NO:2475:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 301 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2475:

1 GTCAGCTCAG CCTCAAAGG AGCCAGCCTC TCCCCAGTTC CTGAAATCCT GAGTGTGCCC
 61 TGCCAGTCGC CATGAGAACT TCCTACCTTC TGCTGTTTAC TCTCTGCTTA CTTTGTCTG
 121 AGATGGCCTC AGGTGGTAAC TTTCTCACAG GCCTTGGCCA CAGATCTGAT CATTACAATT
 181 GCGTCAGCAG TGGAGGGCAA TGTCTCTATT CTGCCTGCCC GATCTTTACC AAAATTCAG
 241 GCACCTGTTA CAGAGGGAAG GCCAAGTGCT GCAAGTGAGC TGGGAGTGAC CAGAAGAAAT
 301 GACGCAGAAG TGAATGAAC TT

(2) INFORMATION FOR SEQ ID NO:2476:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4741 base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2476:

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1 GAATTCACAT TTCTCACCTT TTGATGTATT AAGAAAGTAT GGAGAAATAT ATCCTCTATC
61 AAATTTTCAT GCCTTCAATA ATTTCTAATT CATCAGTCAG TGTTTTCCCA TCCTTTACTG
121 TGATGATGCC CTTTCTTCCA AACTTTTTC AATGATCAGA GATGATGTTA CCAATTTCTT
181 TGTCTCCATT TGCAGAAATT GTAGCAACCT GTGCAATTC TTCAGGTTTG GTCACAGGTT
241 TAGACTGCTT TTTAAGTTCA GCAATTACAG CATCAACAGC TAACATCACA CCTCTCTTGA
301 TTTCCACTGG ATTAGCACCT TTGCTAACCT TCTGGAAGGC TTATTTGGAA ATAGAGCATA
361 CCAGTACAGC AGCAGTGATA GTGCCATCCC CCAGTCTCTC CATTGTGTGT ATTGGCAACA
421 TCTTGGACAA GTTAGCTCC AATGCTTTTA TATTTATCCT TTAAGTCAAT TGACTTTGCA
481 TCAGTCACAC CATCTTTTGT TACTTTGGGA CTTCCTCCAGC TATGTTCAAT AATTACTGTT
541 CTTCCCTTTG GCCCCATTGT AATGGCTACA GCATCGACAA AAAGTCTACA CTTTGAAGCA
601 TTAAGGCTCA GACATCAGCA CCAAATTTTA CATCTTTACC ATCACTTCAA GTGAGGTGAG
661 GAGCCAGTAG CCTGGACACT GGTCTCATCT GGTGAAAGAC TGTGGGTAAT GGAAGCATT
721 CTGTGGGGTG GTGGCAGGAC ATGTGCATGG TGAGGCAGGT CATCAGCAGC AAGTGAGAGC
781 TGCCTCTTAC TTTCTAAAGG TGACATAGCA AGTATACAAA AAAAAATAAA ATATTAATTT
841 AGGCAGAGCA CATAAAGGCT TTATTTTATA TTCCATTCT CTGTATGCTT TCTTCACCAG
901 GAAGAAATAG TTTTAGTGTC AGGAATGAAT GAGTCTGCC CTCAATTCCA GCCTGCTCAG
961 CACACAAGGA ACAAAGCCC TGACAATCAG AGTGACTCCC TGGTGACTAA GCTCCAGTCC
1021 TGGATGCATA TTTGTTTAGC AGTTCTGACA GCATCTGACC CAGCCCTCTC TTTGCATACC
1081 CCACCAGAAC CTTCTTTTTT TTTTTTTTTC TTTGAGACTG AGTCTTGCTC TGTCCGAAGC
1141 GATTCCCGTG CCTCAGCCTC CCAAATACCT GGAATTATAG GCGTAAGCCA TCATGCTCTG
1201 CTAATTTTGG TATTTTTCAT GGAGATGGGG TTTTGCCATG TTGGTCAAAT TGGTCTCACA
1261 CTCCTGACCT CATGTGATCC ACCTGCCTCA GCCTCCCAA GTGCTGGGAT GACAGGTGTA
1321 AGCCACCATG CTAGGCTCAG AAATTTCTCT TTATAAAAT GTCATTAGG ATCTTGGCTG
1381 CACAATATCG TTACCAGCTT CCTTTAAATC CACCTCTGGC CTGCCAGGAA TCAGGGTTCT
1441 TCAGAACCTG ACATTTTAAA TGAAGAGGTC AGGCAGGTC TGAGGAAAGC CTCATTGTCT
1501 CCATGTCTCT GTCAGTGTG CACCCCTGAG ACATCACAGA CATGGACACT GGGCCTGCT
1561 TGTTTCTCAA ACTGCCCTTA GATCGAAAGA GGGAGGAACC AGGATGAATG CCACTCATTT
1621 TCCCAAGAAA GGCCCTCTCC TGAGTGCCCG GGATGGGGCT CTGTCCATTG CCTGGGGCCG
1681 CCAATTGCTA CTCTGGGTTA CGGAAGAAGG ACAGGGTCTT GAGAGACACC AGAGACCTCA
1741 CACAGCCCTG AAAACATGGG GCTCCTTCAT AAGTGTTC CACACCAAC AGGGAGACCA
1801 CGTGGAGGCC TTGCAGCCCT ACTCGGTGCT TCTCCACCAA ATCCCAAGG CAGTGACGCT
1861 GACGTCTGTG GAAAGCAGAG AAAGCCCTGG CTCCCAAAGC CCTGAAGTCC TGTGGAGCTG
1921 ACATTCCCTG AGTGACGGTG TGAATGGAAG GAACTCAAGT GCGGGTGGTA GGCCACCTCC
1981 TGGCCCAAGC CTGGGTGAAC TCTGAGGGA CACATGTAGT CACAATCCCA TCCTCCATT
2041 CTCCTTCTCA GAGGAAGGAA GTGGGCATCC ATCTGCCTCA TCTCTCTCCC GTGGGGAAGA
2101 TGGGGAGTTT CAGGGGAATC TTCACATAAA TTTACCAGC TCAGATCTCC TGTGAGGATG
2161 GGGCCCAACA TGCTCCCGGT GCTGCCAGAG GCCCTGAGC CCTCCAGGT CCCTGGGTTT
2221 GAGCCAGCCC TGTATCATCC CCAGGAGCTG AATGTCCGAA CAATGGATAG AATTAGATGG
2281 AAAGAGCTCT CAATTTGGCC TGAGACTGTC CCCAGATACT CAGGAAAAAC AGGACGTCGC
2341 ACAGAGTGGG CAGCAGGTGA GTGGCAGGTT ATAGGTCCTG AGTTTGAGTT TGTCTCAGC
2401 TGAGACAGAC CCAGCCCTC ACTCCATTCA CACACTGGGT TTTAAATGGT GCAAGATAGG
2461 AGGAATTTTC TGGTCCCAAG AGCAGGAGGA AGGGATTTTC TGGGGTTTCC TGAGTCCAGA
2521 TTTGCATAAG ATCTCTGAG TGTGCATTGT TCTTTGAGGA CCATTCTCTG ACTCACCAGG
2581 TAAGTGGCTG AATTCTAACC TCTGTAATGA GCATTGCACC CAATACCAGT TCTGAACTCT
2641 ACCTGGTGAC CAGGGACCAG GACCTTTATA AGGTGGAAGG CTTGATGTCC TCCCAGACT
2701 CAGTCTCTGG TGAAGCTCCC AGCCATCAGC CATGAGGGTC TTGTATCTCC TCTTCTCGTT
2761 CCTCTTCATA TTCCTGATGC CTCTCCAGG TGAGATGGGC CAGGGAATA GGAGGGTTGG
2821 CCAAATGGAA GAATGGCGTA GAAGTCTCT CTCTCTCTC GTGTGTCCCC TCCATCCTTT TCTCTGCTT
2881 CCTCATCCC TCTCTCTCT TCTCTCTCT CTCTTTTCT CTGTCTTTCT TTTTCTCTC TCCCTAGAGC
2941 CTCTCTCTT TCCCTCTCT TCTTTTCTT CTGTCTTTCT TTTTCTCTC TTTTCTCTC TCCCTAGAGC
3001 ATGTCTTTCT TTCTTTCTCT TTCTTTCTT CTACCCACAC TTTTAGACTG AGTAGACTGA
3061 ATGCCCTATT TAATTGAACC AAGCATTGCT TCCTTCAATA GAAAAGGAGT TTGAGAACCC
3121 AATGGACAAC TCACTCGTTC TTCTAAGCCA ATATGAAGGA GCCCAGTAGT TTGTAAATAT
3181 CATCTCTTCA CTGCTTTCCA TGCTACAAC TCTGAGACTA TGTTGAAAC CTGTTAGGTG
3241 ACTTTTAAA TAAAAGGCAG AAATTTTGAT TTTATCTAAA GAAAGTAGTA TAGAATGTCA
3301 TTTTCTAAAT TTTTATATT AAAGAGTAGA TACTGCAACC TAGAGAATTC CAGATAATCT
3361 TAAGGCCAG CCTATACTGT GAGAACTACT GCAGCAGACA CTCTGCCCCC AGGACTTTTC
3421 TGATCAGAGG CCCTGAGAAC AGTCCCTGCC ACTAGGCCAC TGCAGGTTCA CAGGACAGGG
3481 ACAGCCCAT GAAACCAACT TTTAAACCTG GATGCCTAAC CTTCAATTTT TCCTTGATAT
3541 TATGAAATA AAATAAAAC CATGAAAGGA TAAAGAGGG AGAGTGGAG GGAAGGATGG
3601 AGAAAGGGAA AAAGAAATTT TGAGAGTAAA TCCTAAACA ATTAATCTAA TAGATATCAT
3661 CTTGTGAAAT CCTCATTTTA CCAATCTTAT TTATGAGTCC TGGGTTTTGT GAGACAATG
3721 GGGTTCTGAG AGGCACCAGA GACCTCATAT TTTCCAAAAC CTAGAACAGT ATAATGAAGG
3781 AAGGAGGGAA GGAGGGAGG AGGGAGGAA GGAGGGAAG AGGGAGGAG GGAGGGAAC
3841 AAAAGAAGA ATGAGGTTGA AACCAAGACT TAGATATTAG AAACAAGCCA TTACAAAATT
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3901 TATTTCTATG GTTAATTGTG GTTTTCAACT GTAAGTTACT TGGTGTTAAT TTCTATTAA
3961 ACAATTTTCAG TAAGTTGTCAT CTTTTTATC CCATCTCAGA TCAAATACTT AACAGACTAA
4021 ATGATTTGAA AAAGCAAAAG TTTACTGGCT TGTGTGTGT AAAATGGAGG TATGGTGGCT
4081 TTGATATTAT CTTCTTGTGG TGGAGCTGAA TTCACAAGAG ATCGTTGCTG AGCTCCTGCC
4141 AGACCCACC TGGAGGCCCC AGTCACTCAG GAGAGATCAG GGTCTTTTAC AATCAGGTTT
4201 TACAAAAATA AACATCCCCC AAACCACAGC AGTGCCAGTT TCCATGTCAG AAACCTAGAT
4261 CCAAATGACT GACTCGCGTC TCATTATCAT GATGGAAAAG CCCAGGCTTG AGAAAGAAGC
4321 CCCTGCGGGA TTTACTCAAG GCGATACTGA CACAGGGTTT GTGTTTTTCC AACATGAGTT
4381 TTGAGTTCTT ACACGCTGTT TGCTCTTTT GTGTGTTTTT TCCCTGTTAG GTGTTTTTGG
4441 TGGTATAGGC GATCCTGTTA CCTGCCTTAA GAGTGGAGCC ATATGTCATC CAGTCTTTTG
4501 CCCTAGAAGG TATAAACAAA TTGGCACCTG TGGTCTCCCT GGAACAAAAT GCTGCAAAAA
4561 GCCATGAGGA GGCCAAGAAG CTGCTGTGGC TGATGCGGAT TCAGAAAGGG CTCCTCATC
4621 AGAGACGTGC GACATGTAAA CCAAATTAA CTATGGTGTG CAAAGATACG CAATCTTTAT
4681 CCTAGTAATT GTGGTCATTG GGTGATGTTG GTTTGGGCAG GCCATCTCTA ATATCCTTGA
4741 AACACCTTTT TCTGCTCTCC AGGAAGGGGT CAGGGCTGCC ACAGCGGGGC TTGAGTGC

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(2) INFORMATION FOR SEQ ID NO:2477:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3661 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2477:

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1 GAATTCCTG TAAGCCCTGT TACAGGGGCT GCACCCAGA TACAACCTGA CCTGTGTCCA
61 AGGCGGGCAA CTCAACCTT AGATATTGAA TGGGTCCCAT GGCACCAATG CTTAACACACC
121 AGCAGCCCTC ACAACCACAG ATCGTGTGTT AAGGATGAGG AGGTAGTTCT CTGGATGCAC
181 AGGCTTCAAT CCAAATGGGC TCATGACGCC GCAGCACACA CCCAGTCTGC AGCCTGAAGA
241 GTTGGAGCAT TGCAATCACA GAAAGCATCC AGACATGATC ATGGGCTCAG GGATACACCT
301 GTTCTCCGAT GTGTACCACT GAAGGATGGA AACTCCTATG CCTCCAGAA AGCACCCTC
361 AAGCTTTTGC TGAATGCTTC TCTGAAGGCC CACAAGGCTG AGAGGCTGTG CAACACCAGC
421 AGTAAAGTGA ATGCCCAGAC TCCACCTCC TTTCTTGGGT GGCCATCTGG AAAGGCCACT
481 CCCACCCTGA TGGCTAATGC CTCAGACCAG TTCTTGGCCC AGATGATCCT AGACAATTGT
541 TTAAGCTTAA ACTGTTTATT GGCCAAGCAA ACAGGTGATA GTACCTCTGG GGAACCATC
601 GCCGCGTGTA CATCCAGATC TCAGGAGAAC CCAAAATGT CTGTTCCACA TAGCAACAGA
661 AGCCCAGGTA GCACTCAGTC TCACCTGGGT GTTCTCCAAC ATCCCAGCTC AGCCAAATGG
721 CTTTCATTAG TTTTATGTT TAGACCCAG GTCCCTCGGA CACTGCTTTA GAAACACATT
781 CCAAAATCCTC CTCTGTGTGC AGGTGGCATT CCTATCCCAA TCTCTTTGCA GGGCGTATAC
841 TGTGATACGC AGCCAGGCTG TCCAGAGGC CTAAATATT CCCTTGGTGC AGGTAGTTCA
901 GCTTAGCCAC AGCCAATGCA TCACAGGGTC AACTGTGTTA GGAGCCATTG AGAATCCATA
961 GTTGGTTGCT GCCTGGGCCT GGCCAGGGCT GACCAAGGTA GATGAGAGGT TCCTCTGTGG
1021 AGTTCTACTT TAACCTCACC TTCCACCAA ATTTCTCAAC TGTCCTTGCC ACCACAATTA
1081 TTTAATGGAC CCAACAGAAA GTAACCCCGG AAATTAGGAC ACCTCATCCC AAAAGACCTT
1141 TAAATAGGGG AAGTCCACTT GTGCACGGCT GCTCCTTGCT ATAGAAGACC TGGGACAGAG
1201 GACTGCTGTC TGCCCTCTCT GGTCAACCCTG CCTAGCTAGA GGATCTGTAA GTACTACAAA
1261 ACTTAAACTT TACACTGAGT TTTTCATCATT GAAGCTATGC CTCCAATCTG ACCTCTGACT
1321 GTGGGGCCGC CCCAGAGGGA CCCAGCGGGT GAATCCCTGC TAGGAACGTC TGTCCGGACC
1381 TCTGGTGAAT GCTGGGACG ATGGCTTCCA GCTAACTTAA TAGAGAACT CAAGCAGTTT
1441 CCTTCTAAAT ACACATGTCA CATGTCCTGG TTGACATGTC CAGTAAGAAG ACTATCACAG
1501 GTCTTTGGAA CATTCTTTT AGAGAAACCT ATTTAGGTCC TTGGTCTGTT TTTCAATCAG
1561 GTTGTGTTGAT TTTTGTATT GAGTTGTTGG AATTCTTAT TATTACAGAT ATTTGCCCTT
1621 TCTGCCATGT AGGTTTGTCA AATATTTTCT CTCATTTTCT GGGTTATCTT TTCACTCGGT
1681 TGATTGTTTC CTTTGCTGTG CAGATGCTTT AGCGTTAAAT GAAGCCACAC TTGTCTATTT
1741 TCCCTTTTAT TGCCTGTGCC TTTGGTGTCA TAGCCAAGAA ATCATTACCT ACATCAATGT
1801 CAAAAGCTTT ATCCTTCTAT AACTTCTAG TAGTTTATGG TTTAGTTGT TACATTTAGG
1861 TTTTCAATTC ATTCTGAGTT GATGTTCTTA CATGGTGTGA GATAAAGATT TAAATACATA
1921 CATATATAAA ATCATGAGGT AGTGTACACT ATAAATATAC AATTGTTAAT TGTACTCAA
1981 GTCTAAGTAG AGGTGGAAT AATAAACTT CTTTTTTTTA CTTAAACCAC TCTGTGTAC
2041 TGAGCTGATT TCACCTTAG CCTGATAAAA TCATTGTCCT CTCCACCCTG ATTCCTACAG
2101 GAGACTACTC ACCCATAAC CTCAAAAACC TCTTCATGAG GATGGTAAAT CACCTGAATC
2161 CTGAAGTGAA TTACTCGCTA TTCCATTGGA ACTCATATAG GACACCAGAA TCTAGACCTC
2221 CAGAGAACAG CAGGACCCAT CTTCAAAAA TAAGAAGCAT TTGTTCCCTG AGCCTGTTGA
2281 ATCAAAGTGC AATTCTATT CTTTTTGGAA TGTAAAAAG TGAATCATA TATTTAAGCA
2341 GGTGAACCCA CGAGTAACAT AGCAGGGTCT TTCTTGTCT TATTAGTCC AACCTAGAC
2401 AGACATTAAA GGTACAGATG TATACTAGCA TGAACTGGG AGAACAGGAG CATTGAGCA
2461 ACCTTGAGAC CAATGGGCCT CTCTTATAAA ATGCACACCT CCTCTCACTG AGATTGAGGA
2521 AGGTTTCTTG TCTCCGAGCC TTCTCCAGT AGAGCTATAA ATCCAGGCTG GCTCCTCCCT
2581 CCCACACAG CTGCTCCTGC TCTCCCTCCT CCAGGTGACC CCAGCCATGA GGACCCCTCG
2641 CATCCTTGCT GCCATTCTCC TGGTGGCCCT GCAGGCCAG GCTGAGCCAC TCCAGGCAAG
2701 AGCTGATGAG GTTGCTGCAG CCCCAGGACA GATTGCAGCG GACATCCAG AAGTGGTTGT

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2761 TTCCCTTGCA TGGGACGAAA GCTTGGCTCC AAAGCATCCA GGTGAGAGAG GCAGGCATGC
2821 AGAGCTGCTA AGTCTAGAGG GAAGGACGGG AGAGAGGTTT CAGAGTTGGG TCTCAGCAGT
2881 CTATGCTACT GAGGTGGCTT CACTTAGAAT CTCTGGGCAT TGATTTTCTC ATCTAGAAAT
2941 TGAACAGAGA GCCAAATAAA CCTGAGAAAC TTTATTTCTC CAAAGACTTG ATTCCAAGAA
3001 ACATCTGTGA AATTCATAA GTTTAAGATA TGAAGAGACA GACTAGTTAT TTCTGGATCT
3061 AAACAAGTAG ACTTAGTTGT AAAGAGAACA TTTTACTCTA TCTACAGAAG AGCTTTTAAA
3121 AACTGCAGCC AAGCCTGAGG GTAAGTTCAG GTGTGTGTGT GATGGGGCAG GAATGCAAAA
3181 ATGAGAGCAA AGGAGAATGA GTCTCAAATT CTGTGTGACA AGCACTGCTC TGGGTGTTTA
3241 TTCCTATCGA CTGAGGTTGT TCGTGTACC GGCTGCAATG CAGCCAGCAT CACCTGTCAG
3301 CTAGCATGTG ACTTCCCCGA GATTCTTTT CTACCCACT GCTAACTCCA TACTCAATTT
3361 CTCATGCTCT CCCTGTCCCA GGCTCAAGGA AAAACATGGA CTGCTATTGC AGAATACCAG
3421 CGTGCAATGC AGGAGAACGT CGCTATGGA CCTGCATCTA CCAGGGAAGA CTCTGGGCAT
3481 TCTGCTGCTG AGCTTGCAGA AAAAGAAAAA TGAGCTCAA ATTTGCTTTG AGAGCTACAG
3541 GGAATTGCTA TTAATCTGT ACCTTCTGCT CAATTTCTT TCCTCATCTC AAATAAATGC
3601 CTTGTTACAA GATTTCTGTG TTTCCACCTC TTTAATGTGT GATATGTGTC TGTGTCAAGA
3661 CACTTGGGAT ACACGTACCA AAACGCAAAA TCAAATTTT GAACAATATA

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(2) INFORMATION FOR SEQ ID NO:2478:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 421 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2478:

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1 CCTACCTTGC TATAGAAGAC CTGGGACAGA GGACTGCTGT CTGCCCTCTC TGGTCACCCT
61 GCCTAGCTAG AGGATCTGTG ACCCCAGCCA TGAGGACCCT CGCCATCCTT GCTGCCATTG
121 TCCTGGTGGC CCTGCAGGCC CAGGCTGAGC CACTCCAGGC AAGAGCTGAT GAGGTTGCTG
181 CAGCCCCGGA GCAGATTGCA GCGGACATCC CAGAAGTGGT TGTTCCTT GCATGGGACG
241 AAAGCTTGGC TCCAAAGCAT CCAGGCTCAA GGAAAAACAT GGACTGCTAT TGCAGAATAC
301 CAGCGTGCAT TGCAGGAGAA CGTCGCTATG GAACCTGCAT CTACCAGGGA AGACTCTGGG
361 CATTCTGCTG CTGAGCTTGC AGAAAAAGAA AAATGAGCTC AAAATTTGCT TTGAGAGCTA
421 CAGGGAATTG CTATTACTCC TGTACCTTCT GCTCAATTC CTTT

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(2) INFORMATION FOR SEQ ID NO:2479:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3781 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2479:

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1 CTGAGACAG AGGCAGCAGT GATACCCACC TGAGAGATCC TGTGTTTGAA CAACTGCTTC
61 CCAAAACGGA AAGTATTTCA AGCTAAACC TTTGGGTGAA AAGAACTCTT GAAGTCATGA
121 TTGCTTACA GTTTCTCTCA GCTCTACTT TGGTGCTTCT CATTAAAGAG AGTGGAGCCT
181 GGTCTTACAA CACCTCCAGC GAAGCTATGA CTTATGATGA GGCCAGTGCT TATTGTGAGC
241 AAAGGTACAC ACACCTGTTT GCAATTCAAA ACAAAGAAGA GATTGAGTAC CTAAACTCCA
301 TATTGAGCTA TTCACCAAGT TATTACTGGA TTGGAATCAG AAAAGTCAAC AATGTGTGGG
361 TCTGGGTAGG AACCCAGAAA CCTCTGACAG AAGAAGCCAA GAAGTGGGCT CCAGGTGAAC
421 CCAACAATAG GCAAAAGAT GAGGACTGCG TGGAGATCTA CATCAAGAGA GAAAAAGATG
481 TGGGCATGTG GAATGATGAG AGGTGCAGCA AGAAGAAGCT TGCCCTATGC TACACAGCTG
541 CCTGTACCAA TACATCCTGC AGTGGCCACG GTGAATGTGT AGAGACCATC AATAATTACA
601 CCTGCAAGTG TGACCCTGGC TTCAGTGGAC TCAAGTGTGA GCAATTGTG AACTGTACAG
661 CCCTGGAATC CCCTGAGCAT GGAAGCCTGG TTTGCAGTCA CCCACTGGGA AACTTCAAGT
721 ACAATTCCTC CTGCTCTATC AGCTGTGATA GGGGTACCT GCCAAGCAGC ATGGAGACCA
781 TGCAGTGTAT GTCCTCTGGA GAATGGAGTG CTCCTATTCC AGCCTGCAAT GTGGTTGAGT
841 GTGATGCTGT GACAAATCCA GCCAATGGGT TCGTGGAAATG TTTCCAAAAC CCTGGAAGCT
901 TCCCATGGAA CACAACCTGT ACATTTGACT GTGAAGAAGG ATTTGAACCT ATGGGAGCCC
961 AGAGCCTTCA GTGTACCTCA TCTGGGAATT GGGACAACGA GAAGCCAACG TGTAAGCTG
1021 TGACATGCAG GGCCGTCCGC CAGCCTCAGA ATGGCTCTGT GAGGTGCAGC CATTCCCTG
1081 CTGGAGAGTT CACCTTCAAA TCATCCTGCA ACTTCACCTG TGAGGAAGGC TTCATGTTGC
1141 AGGGACCAGC CCAGGTTGAA TGCACCACTC AAGGGCAGTG GACACAGCAA ATCCCAGTTT
1201 GTGAAGCTTT CCAGTGCACA GCCTTGTTCA ACCCCGAGCG AGGCTACATG AATTGTCTTC
1261 CTAGTGCTTC TGGCAGTTTC CGTTATGGGT CCAGCTGTGA GTTCTCCTGT GAGCAGGGTT
1321 TTGTGTTGAA GGGATCCAAA AGGCTCCAAT GTGGCCCCAC AGGGGAGTGG GACAACGAGA
1381 AGCTCCACATG TGAAGCTGTG AGATGCGATG CTGTCCACCA GCGCCGGAAG GGTGTTGGTG
1441 GGTGTGCTCA TTCCCTTATT GGAGAATTCA CCTACAAGTC CTCTGTGCTG TTCAGCTGTG
1501 AGGAGGGATT TGAATTATAT GGATCAACTC AACTTGAGTG CACATCTCAG GGACAATGGA
1561 CAGAAGAGGT TCCTTCCTGC CAAGTGGTAA AATGTTCAAG CCTGGCAGTT CCGGGAAAGA
1621 TCAACATGAG CTGAGTGGG GAGCCCGTGT TTGGCACTGT GTGCAAGTTC GCCTGTCTG
1681 AAGGATGGAC GCTCAATGGC TCTGCAGCTC GGACATGTGG AGCCACAGGA CACTGCTCTG

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1741 GCCTGCTACC TACCTGTGAA GCTCCCACTG AGTCCAACAT TCCCTTGGTA GCTGGACTTT
1801 CTGCTGCTGG ACTCTCCCTC CTGACATTAG CACCATTCTT CCTCTGGCTT CGGAAATGCT
1861 TACGGAAAGC AAAGAAATTT GTTCCTGCCA GCAGCTGCCA AAGCCTTGAA TCAGACGGAA
1921 GCTACCAAAA GCCTTCTTAC ATCCTTTAAG TTCAAAAGAA TCAGAAACAG GTGCATCTGG
1981 GGAAGTAGAG GGATACACTG AAGTTAACAG AGACAGATAA CTCTCCTCGG GTCTCTGGCC
2041 CTTCTTGCCCT ACTATGCCAG ATGCCTTTAT GGCTGAAACC GCAACACCCA TCACCACTTC
2101 AATAGATCAA AGTCCAGCAG GCAAGGACGG CCTTCAACTG AAAAGACTCA GTGTTCCCTT
2161 TCCTACTCTC AGGATCAAGA AAGTGTGGC TAATGAAGGG AAAGGATATT TTCTTCCAAG
2221 CAAAGGTGAA GAGACCAAGA CTCTGAAATC TCAGAATTCC TTTCTAACT CTCCTTGCT
2281 CGCTGTAAAA TCTTGGCACA GAAACACAAT ATTTTGTGGC TTTCTTTCTT TTGCCCTTCA
2341 CAGTGTTCG ACAGCTGATT ACACAGTTGC TGTCAATAA ATGAATAATA ATTATCCAGA
2401 GTTTAGAGGA AAAAAATGAC TAAAAATATT ATAACTTAAA AAAATGACAG ATGTTGAATG
2461 CCCACAGGCA AATGCATGGA GGGTTGTTAA TGGTGCAAT CCTACTGAAT GCTCTGTGCG
2521 AGGGTTACTA TGCACAATTT AATCACTTTC ATCCCTATGG GATTCACTGC TTCTTAAAGA
2581 GTTCTTAAGG ATTGTGATAT TTTTACTTGC ATTGAATATA TTATAATCTT CCATACTTCT
2641 TCATTCAATA CAAGTGTGGT AGGGACTTAA AAAACTTGTA AATGCTGTCA ACTATGATAT
2701 GGTAAGGTT ACTTATTCTA GATTACCCCC TCATTGTTTA TTAACAAATT ATGTTACATC
2761 TGTTTTAAAT TTATTTCAA AAGGGAACT ATTGTCCCCT AGCAAGGCAT GATGTTAACC
2821 AGAATAAAGT TCTGAGTGTT TTTACTACAG TTGTTTTTGG AAAACATGGT AGAATTGGAG
2881 AGTAAAACT GAATGGAAGG TTTGTATATT GTCAGATATT TTTTCAGAAA TATGTGGTTT
2941 CCACGATGAA AAACCTCCAT GAGGCCAAAC GTTTTGAAC AATAAAAGCA TAAATGCAAA
3001 CACACAAAGG TATAATTTTA TGAATGTCTT TGTGGGAAA GAATACAGAA AGATGGATGT
3061 GCTTTGCATT CCTACAAAGA TGTTTGTGAG ATGTGATATG TAAACATAAT TCTGTATAT
3121 TATGGAAGAT TTTAAATTCA CAATAGAAAC TCACCATGTA AAAGAGTCAT CTGGTAGATT
3181 TTTAACGAAT GAAGATGTCT AATAGTTATT CCTATTTGT TTTCTTCTGT ATGTTAGGGT
3241 GCTCTGGAAG AGAGGAATGC CTGTGTGAGC AAGCATTAT GTTTATTAT AAGCAGATTT
3301 AACAAATCCA AAGGAATCTC CAGTTTTGAG TTGATCACTG GCAATGAAA ATTCTCAGTC
3361 AGTAATTGCC AAAGCTGCTC TAGCCTTGAG GAGTGTGAGA ATCAAAACTC TCCTACACTT
3421 CCATTAACTT AGCATGTGTT GAAAAAATAA GTTTCAGAGA AGTTCGGCT GAACACTGGC
3481 AACGACAAAG CCAACAGTCA AAACAGAGAT GTGATAAGGA TCAGAACAGC AGAGGTTCTT
3541 TTAAGGGGC AGAAAACTC TGGGAAATAA GAGAGAACAA CTACTGTGAT CAGGCTATGT
3601 ATGGAATACA GTGTATTTT CTTTGAAATT GTTTAAGTGT TGTAATATT TATGTAACT
3661 GCATTAGAAA TTAGCTGTGT GAAATACCAG TGTGGTTTGT GTTTGAGTTT TATTGAGAT
3721 TTTAAATTAT AACTTAAAT ATTTTATAAT TTTTAAAGTA TATATTATT TAAGCTTATG
3781 TCAGACCTAT TTGACATAAC ACTATAAAGG TTGACAATAA ATGTGCTTAT GTTT

(2) INFORMATION FOR SEQ ID NO:2480:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 141541 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2480:

1 GATCAAAATT TTTACCTATT ATGCATTGA TATATAATA AGTATATAA TGCACACACA
61 GACACAGCAA TGATGGTGAA CAGTCTTCAT ACAATTATAT GGATGAATCT CATAAAATGC
121 TGAGTTAAAG AAATCAGACC AAAGAACATA TACTGAAAGA TTCTCTCTAT ATACAAAGTT
181 CAAAAATAGG TGGACCAATT CATGGTGGTG TTAGAAATCA GAAGAGAGGC TACCTTTGTG
241 GGGAGGGGAC AGTTTAATGC CCAGAAGCGG TAAATAAGGA ATCCTCTGGG GAGTGGTAAAT
301 GATCTGGATG CTGGCTACAG GATGTGTTGG TTGTAATAAT GCATTTTTTT ATATCTAGCT
361 TTTTCCATGT GTATATTATA CTTCAAAGAA GTTCAGTTAA TAATTTCTCA TGTCACTGTA
421 GAGTAGCTCA GTTAGCCCCA GCAAGCCTCT GGCTTAATCT TGTTTACCT TAAGCCATCA
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EPI-109

619

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25441	TTGCTAAATT	GCCTGGTGGC	AAGACCCAAT	ATGTCCATTC	AAGTGTTTAT	CCCTTCCCAA
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25621	TTGGTCTTGT	TGGTAGGAAT	TGTGCAGCCT	CATCTGAGTA	ACTAATGTGT	TTTATCTTA
25681	CAACACAAAG	GAATATCACA	TGGTTCTCCT	TTGACTGGCT	GTAAGGAAAC	TCAGAGTAG
25741	ATCTGAGACC	CTCTCCTACC	AAGTATATAA	AACCTTTGTA	CATACATTTT	TGTGCCATAA
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28321	ACTGTATAAT	ACTATAAGAT	AGTGAGATTC	AATCAGCACA	GAATTTCTAA	TAGCAAGGGC
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65281	GATTATTCAA	TCCGTACAAC	AGCCTATGAA	ATAGTACTC	CTATTATCCC	CATTTTACAG
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65521	CTTCTTCCTG	AGACATCCTT	GACCATCACA	GCTCTCCACT	GAGATAACTG	TGTCCTGGGT
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65821	CTAAACTGAT	TATTTCTAAA	TTGAGAAAGC	TTGAGGGAGA	GATCCCAATA	TTGGAAGGAT
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72121	AACCCAACTC	TATTAGTTTT	TATATCTCAC	TTGTTCCCTAT	ACTCTGTGAA	CTGATGTCCC
72181	ATAAATAGAC	ATTTCAATTT	GCCAGTCTTC	TTGAACAATA	ATTACGATTA	TTAATCTAGC
72241	AGTTATCATT	AATTGGCCAC	TTACATTAG	ACACAGCACT	TAGGACTTAA	GAATACCATG
72301	TCATTTGATC	ATCATAATAT	GGTCAGGAAT	TAAGTATTGC	TATCCAAATT	TTACAAAGAA
72361	GGCACTGAGG	GTTAGAGTTT	AAATAACTTG	CTTAAGATGT	CATAGCCTGT	AAGTGACAAA
72421	ACTAGGACTC	AAATACAGGT	CCATCTGACT	CCAAAGTCTA	TGTTCTTGCG	TACCACTAGT
72481	CCTCTCCTAC	AAGTGACCTG	TGGTTTTACT	ACTATATTCA	CACTCTACTA	ACTTTACCAT
72541	CTCCCATGAG	TCTGTCTAGA	GGAGGGCACA	CACAGCACAG	AAAACACATG	AATGCAAAAT
72601	AAGGAAGGGC	CTACTTACTA	CACAGAGCCA	TTCTAATACC	TGATGTTTGC	TCTAATCCAG
72661	TTTTACTATT	AATTAGTTGC	TGGTGCCCAA	GTTTTTACTG	AGAAATGGGG	ATAATTTTGG
72721	AAGTCATAAT	GATGCCTTCT	TCTCATAGGG	TATTTTATTT	GTTGTTGTAT	CTCCAGGCCC
72781	CAACACAGCC	TGGCTTTTAG	TAAATGATCA	AAAATACCTG	TTGAATGAAT	AAATGGAGTC
72841	ACCTGAAACA	TGTTAAACAT	TTGTTTCATG	GTCTTAATCG	TGGATTTCAG	GATAGTAAGC
72901	ATCTTAAAG	GAAAGCATGC	ACACTGTTCT	TGCTACATTA	ATTTCTCACA	ATATAAAAAA
72961	AGAAAAGCAT	CTGAAAAAAG	CTGCCAGCCG	CTGTGTCTCC	TAATATCAAA	CTGACACAG
73021	ATATGGAGAA	GCTAAGGGAG	AGGGATGATG	GGCCATGCCT	CTAACCTCAT	CATGGCAAAA
73081	GTCTGGGGGG	TCAGACCCGA	GGAGAGCAGG	AAGTGTCTTT	TGAGGGATAC	ATTTCCACAG
73141	TGGAAATAAT	GAGACTTAAA	TAAATATTAT	ATACACAGTT	CAACTGTTTT	TATGTGTAAA
73201	GGTAGTAGGT	TTTCACAGTA	AGGAAGCACT	TCTTTTTTTT	TTTGTTTGAG	ACAGAGTCTC
73261	GCTCTGTCTC	CCAGCCTGGA	GTACAGTGGT	GCTATCTCGG	CTCACTGCAA	TCTCTGCCTC
73321	CTGGATTCAA	GTGATTCTCC	TGCCTCAGCC	TCCCGAGTAG	CTGGGACAAC	AGGTGTGTGC
73381	CATTACACCT	GGCTAATTTT	TGTATTTTTA	GCAGAGATGC	GGTTTCACCA	TGTTGGCCAG
73441	GCTGATCTCG	AACTCCTGAC	CTCAGGTGTT	CTGCCCGCCT	CTGCCCTCCA	ATGTGCTGGG
73501	ATTACAGGCA	TGAGCACTG	CACCTACCAA	GCATTTCTAC	TGATAGCATT	TACAAACCTT
73561	TCTTAGAATA	TTTAAAAATT	CTAAGAGAAG	AGTAAATTGA	GCCTTCCCAA	CTAATACTAG

73621 GAGGTTATAA CCTTCATACC AAAACTGGAC AATGCTTGCA CAAAAGAAGG AAGCCAATGA
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73801 ATCTAGCTGT GATAAAGGAG TCAAGGTAGT CAGCTGCATC TCTTTCACCT GTTTGCCAAT
73861 GTTACACAGG TTGAAAAGCT AAGGTTTTATG TAAAGCAAGC ATCAAAGATG ATGAAATGAT
73921 CAACCTGACA ATGAGTACTA TGCTGCATTG TCCAGAAAGG AACTGTGGAA GATTTTGGGC
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84241	TTAGCACAGT	GCCTGGCATA	AGGAAAATGA	TCATTAAAG	CTGGGTGAAA	AACCTAATA
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84361	CATCATCCTG	AAAGGCAGAA	GATTTAGTAT	AGGCAAGAAG	TATGCTTTTG	GAATATAGAA
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85981	ACTGTTTATT	AGTAAACAAT	GTTGTAGAAT	AGTAAAATAT	TGCTGGGCTT	TGGAGCCAGA
86041	TAATCAAGGT	TAGAATCCCA	GATTCTAACT	TACTAGCTGG	TGTATTAGTC	CTTTCTCATG
86101	CTGCTAATAA	AGACATACCC	CAGACTGGGA	GACTGGGTAA	TTTATGAAGA	AAAGAGGTTT
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86341	CCACCAAGTT	CCCCCATGTA	CACATGGGGA	TTATGAAAGC	TATAATTCAA	GATGAGATTT
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86461	TCACATTTCA	AAACTCAATC	ATGCCCTCCC	AACTGTCCCC	CAAGGTCTTA	ACTCATTCCA
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86881	AGGCTGACAT	TGAGTGTCTG	TGGCTTTTCC	ATGAGTATGG	TGCAAGCTGT	TGGTGGATTT
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87001	GGCTGAGGTG	GGGGATCACA	AGGTGAGGAG	ATCGAGACCA	TCTGGCTAA	CACGGTAAAA
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92761	CACACTCTGC	TATATAAGAT	TAATTGACAG	TGTCCCACT	GGTAAATAA	GTGTTTCAT
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100741	AGCTCCTATT	AGAAAGTCA	AGATTCTCTG	GGGTTCTTAG	GATTTACTGT	TCCCAAAACT
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100861	ATTCTCAGAG	AAGATTTGTT	TTAAGAAGAC	ACTTTCCATA	GGAATCAAAC	AATAGCTTTT
100921	AGTGACTAAC	ATGGTAAGAC	ACAGGGTGTT	AGCTCTTTCC	TTCCAACCTC	ATGGCTGTTG
100981	TACCTTACCT	TTCGACCCCG	TGTTCTGTAA	ATTGTTAAAT	TCATAAACTT	ACCAAGGACT
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101101	CATAATGATA	ACTGACTAAT	AGGAAATACC	CTCAACTGAA	AATGAGAGAT	CATCATTTGC
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101221	TTGAAATCCT	CCTTTTCCAT	TTTTTGTGTC	TTCTTTTTC	ATAGGCACCA	GAAATATCAT
101281	GGTGCCTGGA	TCTCATCTCT	ACAGAAAAAA	AAAGTGATTT	GATAAACTGA	TTTATATTGT
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101401	GCAGGCTCTC	GACTTCATTT	CAGACACTGT	GGCCAATGGC	TGGGAAACAG	GTATGAACAG
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113341 AAAGGGGCAC ACACAGAACA CAAATAGACC CAGGGTCTTT TCTGTTTATC ACTCAGCTTT
113401 TTATAGGAGA TCCAGGAGAA ATGAAGTGA AAGGGAAGTG TGTGAGTTA CTATACAAAC
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113641 AAGGGACTGA CATGTAGGAA GTGGCACTG GGAGGGTCTC AATTCTTCT ATTACAAAA
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113821 ATAGGAGGGG GAGCACACAG GCAGGAAGGT GCAGGAGCTG GGCAGCTCT TTTGGGCTCTG
113881 GCCCCGTGGT ACTGTCTAGA GGTGGGTGCC TGCAACTCTT GAAAGCCCAA GTGGGCTATG
113941 GTTACAGTGC ACTCTTTCAG CTTTGTGTC TGCAGCTTAA GCGTTAACCA GCTCATTTT
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114061 AGGATGAATG TGGGAGTTTT ATGGAGTGGT GGAGGTGCT CTAGTGGGA TGGATGGGA

114121 GCTGGAAGGG GGATGGAGTG GGAAGATGAT ATTCTCCTGG AGTTTGCTG TCCAGCAGCC
114181 GATCTCCTCT CCAGTCGTCT CCAGCCTCTC GACGTTGAGA TGCTCCTCTT CTCTCCTTCT
114241 CTGCCATGCT GTTCTGCCGT TCATCTGCTT GTCTCTCTCT GGAGCCTGGA ATTTGGGGTT
114301 TATATGGTAC ACAATAAGGG GCATGGCAGG CCAAAAGGGA ACTTTTTAGG TGCAAAAAAC
114361 AGGAATGCCT CTTCTCACTT AGGGCTATAG ATTTTCAGGC TTGAAGGTGG GGCCTTTACC
114421 AGCGAACCTG TATTTCCCTG TCTCCTGTGC ATATCAATGT AATCAAATAC TGGGCTGATC
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116221 CTCCCCACTA CTGCAAAATC CCATTGCCAT GGTCCTATA CTATCTCAAT GGTAATGAAT
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118801	TTTTTTTTTC	TCTTTTTTTG	TTGAGAGAGT	CTTCCCTGT	TGCCTAGGCT	GGAGGGCAAT
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118921	CTTGTCCAG	CCTCTCTAAT	AGCTCGGATT	ACTGGCATGC	ACCACCACGC	CCACCTAATT
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119041	CCTCAGGTGA	TCTGCCTGCC	TTGGCTCCC	AAAGTGCTGG	GATTACAGGT	GTGAGCCACC
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119281	ATTAAAAGTC	TAATTCTCTT	GGAGAATTGA	GAGATACCTA	TTTGTCTCAA	AATCATTGAA
119341	ACCAATTAAT	GTATTATGAG	CCTCTATCCA	GTGATTTGTA	CCTCAATTCC	CCAATCCAGC
119401	TGTCAGGGCC	AATTTGTCTT	ACCTTACCTA	GTAGGTAAGT	CTGGAATTGT	AGCTGTGGCA
119461	TTTTTCAGTAA	TGGTACTCTA	GGTTAGCAGT	CCCCAACCTT	TTTGGCACC	GGGACCAGTT
119521	TTGTGGAAGA	CAATTTTTCC	ATGAAGGGCT	GGGCAGGGGA	GTGGTTTCAG	GATGAAACTG
119581	TTCCACCTCA	GATCATCAGG	CATTAGATTG	TCACAAGGAG	TGCGCAAGCT	AGATCCCTCA
119641	CACATGCAGT	TCACAATAGG	GTGTGCACTC	CCATGAGAAT	CTAACACCGC	TGCTGATCTG
119701	ACAGGAGACA	GAGCTCAGGC	AGTAATACTC	ATTTGCCTAC	CGCTCACCTC	CTGCCGTGCC
119761	GCTCAGTTCC	TAACAGGCCA	CGGACCAGTA	CTGGTCCACG	GCGCAGGCAT	CAGGGACCCC
119821	TGTTGCTAGG	TATAAGCATC	TGGCTGCTGC	ATGTCTTCTG	TGTAGCTACA	TCTGTATGTG
119881	TATCTGATGA	GATATAAATT	ATTTGATTAT	AAATTACTTT	CTTCATATTA	GAGTTGTGAA
119941	TGAGTATCAC	ATATAATTAT	ACATAAACTA	GGAATATGCT	TTTTAATAAT	GTATATAAGT
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120061	GATGAAAATA	GGCATTGGTA	GAGTTGAGAC	CACTGGGTGA	TGAAAGAGTG	TAAAGATTTT
120121	AAAGCCTTCA	GATGCTGGTT	CAAGGTGAGA	AATGTGATTG	GGAGCAAATC	AATTAACCTC
120181	TTGAAGTCTT	ATAGGGCAGT	TATGAATACT	TAATGTTAAC	ATATGTAAAG	CTCTTCTGCC
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120901	TTTCTGGGA	ACAATTTTAT	GTAACGTCAA	AGGTGGTAAA	AGGTCAAATA	GAATGAAGAT
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121021	ATACCTTCTC	AGTTTCACCT	AGTGAGTAAA	AGACTGGTAA	CATAGCTCAC	TTACAATTTG
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121141	TCAAACACTC	AAATTTTTGG	TCCTTCTGTT	TATTTCAATT	TGGATACTCA	GTGAATGTTA
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121381	TTAACAGTCT	AAGGAAAGTC	TGGTGCAAA	TACTATAATA	ATCTGGGTTG	TAAATGGTTT
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121501	AAAACCTCAG	CCACTCACCA	GAAAAAATC	GGCATTTATA	TAGTTGTGTT	ACTTTTGGTT
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121741	GATCCAAGAC	TTTTTTCCCA	GCAAATTTCA	CTTTGGCCTT	TGTGAAATAA	GCCAGGAGGT
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121861	GAGAAGAAAA	GCTTTTTGAA	ACTATGTTTT	CTCCAGGGAA	GTCTCTTTTC	AACAAGATGG
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122161	CAAATTGTTT	TGCAGAACAT	TTTCTGTCCC	TCTCTTCTCC	TTTTTGACTT	TCTGAGACTG
122221	ACAGCTCTTT	TGAGGAATCC	AGGTCAAAG	CTCCATCTCT	AATGGGTGTT	AATTCATTTT
122281	CCAGATGGTC	TTCTATAGTG	AAATTAACCT	GAAAGGTCAT	CCTCTTATTA	AATGCACACA
122341	ATCTTTTAAAT	TCAGATTCTT	CAACTTCTGG	ATAGAATTTG	ATGATACACA	CAAACTGTCC
122401	TCAATTATTC	AATTAGTTTT	GTTGGGCCCA	ATTTCTCTTT	AGCAGCTTAT	ACATGGTAA
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122521	CTCTGGAAAG	AAAAAAGAAA	AAAAAAGAAA	GAAAATGATG	ATTAAAGCAA	AATGGCACAT
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122641	CTTTTTCTTA	AAAAGTTGTG	GGGAAGAGAG	AGAGATAAGA	GATTTGGACA	CTCATACAG
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122761	GCAACCACCA	CCACTACCAC	CTGGACAAAC	ATAAAGTCCA	AGATATTCAG	ACAGGACAGC
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122881	CTTCAGGAAT	AACCTCACTT	CTGTCTTTTA	CAGAAGAGGT	GCAGTATTTT	ATTTTGGTAA
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123001	CTTCACTCCA	AACATTTAGT	CGAGAACAGC	AGCCCTAAGT	GTATAGAAGT	GGGGGTAAAT
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123121	TAGTTTGGAG	AGACCTGTAG	AAATAAGAAG	CAACTTTATT	GAGAATCTTC	TATCTACTGC
123181	GCTAGACACT	ATACCATCTG	CCTCAATTTT	CACAGTTCTG	GCAAGTGGGA	TCTTTGTTCC
123241	CTTTATACAA	GATTTACAAT	TTGGGGGAGA	GGCGGGTCAC	CCAGTCCCGC	GGCTAGGAAC
123301	CGCCCTCTTT	CCTCTCCCAT	CACGCTGCAA	GGCTTGGAGT	CACCTCCGGC	TGCAGGTCCC
123361	GGAACAAATC	CGACCCAGAG	AGTGGGGACT	TCTGGCCCTC	ACCTCCCAT	TTGAATGTAA
123421	TGTTTACAGT	GATCCAGACC	TGGGGATGCT	TGCTTCCCGA	CGTGTCTGG	GATCGCGCTT
123481	CTGAAAAAGC	TCACCTCACA	ACGCCCTCCT	CGGACCTAAA	TCGCGCACCA	GTGAGTCGAG
123541	TCCTCCAGGG	GCTAGAGAAG	CCCGACTTTC	TTCCGGCCCT	TGAGGGACCC	GGGCTCACCA
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124201	GGTATGACGA	TAGCTCTGGC	TCTTAATAGT	TTGAGGTAAA	GCGAGATACT	CTGAGCTTTT
124261	GTCTCCCGTA	AAAAGGGTGG	TGAATATGAA	TAAGGGCTTT	CTTAGCGTTA	TAAGAATTA
124321	AGGCGATAGT	TCTGTGGTGT	GAAATCTTTA	AAAGATGTTC	AGTAATAAAA	AATGATTTTC
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124441	TCCTCTCACC	CAGGCTGGAG	TCTTCTGAA	AGAGTTCTTC	CGCTTGTGTG	TGGCTTTCAA
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124561	CTCATGCCTT	TGTGGTTGTA	AATGTGCCTG	GAATCCTAGC	CTTTCATGGT	AAACCATATG
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124681	AAAGTAACCT	TCACTTGAGA	GAATCTCAAT	ACTGCACAAA	TATTGTGCAG	CTAAAGCCCT
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125041	AAACGACATA	TTCAAAAAAG	CCCAAACTTC	CTCTAGTTTT	CTTCATCTGA	GTAATATGGT
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125281	ATAATTTCATT	ATTCCAAAAA	AGTTAAGAGG	GGAAAAACAT	AGATCTCGTC	ATTTCCCTTT
125341	TTAAACCACT	TTACCTTCAA	GGTTCAGGT	GATCTAAGCC	TTGCCCTTCT	CTCATACCTA
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125461	CTCAGCCTGA	TTTGTCTCTT	CAGCCTTTTG	CATATTTTCT	GTTTATGTCT	TGGCCCAAT
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126241	GCGATCTCAG	CTCACAGCAG	CCAGGTTCAA	GTGATTCTCC	TTCTCAGCC	TCCCGAGTAG
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126721	GGAAAGAAAA	ATTTCTTGTA	ATAGAAATCG	GAAGTACAAA	CTGGGCATGG	TGGTGTGCAT
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126841	GGCTGCAGTG	AGGTGTGATC	ATGTCACCGC	ACTCCATCCT	GGGTGACAGC	AAGACCGTCT
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140521 TTGGACAACA GAGTGAGAGC CTGTCTAGAT AGATAGAAAC AAAGAAAGAA AGAAAGAATG
140581 GTGCTCATAT TTAAAGCAT TGAAAAATGG TCTTCTTGC TTATATTACC CACACCTTCT
140641 TTGTTGGCAT TAAGATGCAA ACTTGTGTTT AAACAGTTGA GTAAATCAAA GATGGGACTG
140701 TTAAGTTATT TGTGTTATTT ACCTGCTTTT TGAAATGTGA AAAATAAAAC TCTAGGTTTA
140761 ATTAGTAGTA TGCTATTTAG TAATGAAGTA AAGCTAGAGG CTTGGAACAA ATCTTGTGTA
140821 ATTTCTCTCT GAATGAGAGA GAAAATTTAA AGTAAGCAAA CAAATAAGTT GTGTGTCACC
140881 ACTCATTGAG TCATTTAACA AGTATTCCCA GAGTACTTAT TCTGTGCCAG GAAATGTTGT
140941 AGGTGCCCTC AACAACCTAG AGTCTAGCCT GAGACACAAG TAAGTAGGTA ATTATTATAG
141001 AATGGTATGA TCTTTGGAGG ACTGGGTATT GGCTGGCTCA TGGGAGTACA AGATAGGTAC
141061 CCAGTGATGA AGTCAGGAAA GGTTCCTTAT GGTGATATGA TGACGTCTAT GCTGATTATA


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141121 AGGTCAAGTGT AGAATAAACT TTGTGCTTTT AAATTTGCAT AGCACTGTAT TAGAGAGTTC
141181 ATCTTCAAAA TAATCGAAAA GGCTGAGTGT GGTGACCCAT GGCTGTAATC CCAGCACTTT
141241 GGGAGGCCGA GGTGGGCAGA TTGCTTGAGC TAGGAGTTCG AGACCAGGCT GGCCAACATG
141301 GTGAAACCCC GTCTCTACTA AAAATACAAA AATTAGCCAG GAGTGATGGT GCGCACCTGT
141361 AATGCCAGCT ACTTGGGAGG CTGAGGCAGG AGGATCACTT GAACCCAGGA GGTGGAGGTT
141421 GAAGTAAGCC GAGGTCATGC CACTGCACTC CAGCCTGGGC AACAGAGTGA GACTCCATCT
141481 CAAAAAATAA AAAAATGATC AAAGAAAGGT GAATTTTCAT CTACCCATT TCTGCTGAGG
141541 AAAATGGACT ATTTTCAAAT ATTTTAAATA AGGGTCAAAA TGAGGGGATC

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(2) INFORMATION FOR SEQ ID NO:2481:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1261 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2481:

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1 GCCACCATGG AAACCTTTG CCTCAGGGCA TCCTTTTGGC TGGCACTGGT TGGATGTGTA
61 ATCAGTGATA ATCCTGAGAG ATACAGCACA AATCTAAGCA ATCATGTGGA TGATTTTACC
121 ACTTTTCGTG GCACAGAGCT CAGCTTCCTG GTTACCACTC ATCAACCCAC TAATTTGGTC
181 CTACCCAGCA ATGGCTCAAT GCACAACATAT TGCCACAGC AGACTAAAAT TACTTCAGCT
241 TTCAAATACA TTAACACTGT GATATCTTGT ACTATTTTCA TCGTGGGAAT GGTGGGGAAT
301 GCAACTCTGC TCAGGATCAT TTACCAGAAC AAATGTATGA GGAATGGCCC CAACGCGCTG
361 ATAGCCAGTC TTGCCCTTGG AGACCTTATC TATGTGGTCA TTGATCTCCC TATCAATGTA
421 TTTAAGCTGC TGGCTGGGCG CTGGCCTTTT GATCACAATG ACTTTGGCGT ATTTCTTTGC
481 AAGCTGTTCC CCTTTTGTGA GAAGTCCTCG GTGGGGATCA CCGTCCTCAA CCTCTGCGCT
541 CTTAGTGTG ACAGGTACAG AGCAGTTGCC TCCTGGAGTC GTGTTGAGG AATTGGGATT
601 CCTTTGGTAA CTGCCATTGA AATTGCCTCC ATCTGGATCC TGTCTTTTAT CCTGGCCATT
661 CCTGAAGCGA TTGGCTTCGT CATGGTACCC TTTGAATATA GGGGTGGACA GCATAAAACC
721 TGTATGCTCA ATGCCACATC AAAATTCATG GAGTTCTACC AAGATGTAAA GGACTGGTGG
781 CTCTTCGGGT TCTATTCTG TATGCCCTTG GTGTGCACTG CGATCTTCTA CACCCTCATG
841 ACTGGTGAGA TGTGAACAG AAGGAATGGC AGCTTGAGAA TTGCCCTCAG TGAACACTTT
901 AAGCAGCGTC GAGAAGTGGC AAAAACAGTT TTCTGCTTGG TTGTAATTTT TGCTCTTTGC
961 TGGTTCCTTC TTCATTAAAG CCGTATATTG AAGAAACTG TGTATAACGA GATGGACAAG
1021 AACCGATGTG AATTACTTAG TTTCTTACTG CTCATGGATT ACATCGGTAT TAACCTGGCA
1081 ACCATGAATT CATGTATAAA CCCCATAGCT CTGTATTTTG TGAGCAAGAA ATTTAAAAAT
1141 TGTTTCCAGT CATGCCCTCG CTGCTGCTGT TACCAGTCCA AAAGTCTGAT GACCTCGGTC
1201 CCCATGAACG GAACAAGCAT CCAGTGGGAG AACCACGATC AAAACAACCA CAACACAGAC
1261 CGGAGCAGCC ATAAGGACAG CATGAACCTGA CCACCTTAG AAGCACTCCT

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(2) INFORMATION FOR SEQ ID NO:2482:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1861 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2482:

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1 GAATTCGGGA AAAAGTGAAG GTGTAAGAGC AGCACAAGTG CAATAAGAGA TATTTCTCTCA
61 AATTTGCCCT AAGATGGAAA CCCTTTGCCT CAGGGCATCC TTTTGGCTGG CACTGGTGTG
121 ATGTGTAATC AGTGATAATC CTGAGAGATA CAGCACAAT CTAAGCAATC ATGTGGATGA
181 TTTCACTACT TTTCGTGGCA CAGAGCTCAG CTCTCTGGTT ACCACTCATC AACCCACTAA
241 TTTGGTCCCTA CCCAGCAATG GCTCAATGCA CAACTATTGC CCACAGCAGA CTAAAATTAC
301 TTCAGCTTTC AAATACATTA AACTGTGAT ATCTTGTACT ATTTTCATCG TGGGAATGGT
361 GGGGAATGCA ACTCTGCTCA GGATCATTTA CCAGAACAAA TGTATGAGGA ATGGCCCCAA
421 CGCGCTGATA GCCAGTCTTG CCCTTGGAGA CCTTATCTAT GTGGTCATTG ATCTCCCTAT
481 CAATGTATTT AAGCTGCTGG CTGGGCGCTG GCCTTTTGAT CACAATGACT TTGGCGTATT
541 TCTTTGCAAG CTGTTCCCTT TTTTGCAGAA GTCCTCGGTG GGGATCACCG TCCTCAACCT
601 CTGCGCTCTT AGTGTGACA GGTACAGAGC AGTTGCCTCC TGGAGTCGTG TTCAGGGAAT
661 TGGGATTCCCT TTGTAAGTGC CCATTGAAAT TGTCTCCATC TGGATCCTGT CCTTTATCCT
721 GGCCATTCCCT GAAGCGATTG GCTTCGTCAT GGTACCTTTT GAATATAGGG GTGAACAGCA
781 TAAAACCTGT ATGCTCAATG CCACATCAA ATTCTAGGAG TTCTACCAAG ATGTAAAGGA
841 CTCGGTGGCTC TTCGGTCTCT ATTTCTGTAT GCCCTTGGTG TGCACTGCGA TCTTCTACAC
901 CCTCATGACT TGTGAGATGT TGAACAGAAG GAATGCGAGC TTGAGAATTG CCCTCAGTGA
961 ACATCTTAAG CAGCGTCGAG AAGTGGCAAA AACAGTTTTT TGCTTGGTTG TAATTTTGTG
1021 TCTTTGCTGG TTCCCTCTTC ATTTAAGCCG TATATTGAAG AAAACTGTGT ATAACGAGAT
1081 GGACAAGAAC CGATGTGAAT TACTTAGTTT CTTACTGCTC ATGGATTACA TCGGTATTAA
1141 CTTGGCAACC ATGAATTCAT GTATAAACCC CATAGCTCTG TATTTTGTGA GCAAGAAATT
1201 TAAAATTGTG TTCCAGTCAT GCCTCTGCTG CTGCTGTTAC CAGTCCAAAA GTCTGATGAC
1261 CTCGGTCCCC ATGAACGGAA CAAGCATCCA GTGGAAGAAC CACGATCAAA ACAACCACAA
1321 CACAGACCGG AGCAGCCATA AGGACAGCAT GAAGTACCA CCCTTAGAAG CACTCCTCGG
1381 TACTCCCTATA ATCCTCTCGG AGAAAAAAT CACAAGGCAA CTGTGAGTCC GGGAACTCTC

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1441 TCTCTGATCC TTCTTCCTTA ATCACTCCC ACACCCAAGA AGAAATGCTT TCCAAAACCG
 1501 CAAGGGTAGA CTGGTTTATC CACCCACAAC ATCTACGAAT CGTACTTCTT TAATTGATCT
 1561 AATTTACATA TTCTGCGTGT TGTATTGAGC ACTAAAAAAT GGTGGGAGCT GGGGGAGAAT
 1621 GAAGACTGTT AAATGAAACC AGAAGGATAT TTAATACTTT TGCATGAAAA TAGAGCTTTC
 1681 AAGTACATGG CTAGCTTTTA TGGCAGTTCT GGTGAATGTT CAATGGGAAC TGGTCACCAT
 1741 GAAACTTTAG AGATTAAACGA CAAGATTTTC TACTTTTTTT AAGTGATTTT TTTGTCCTTC
 1801 AGCCAAACAC AATATGGGCT CAAGTCACTT TTATTGAAA TGTCATTGG TGCCAGTATC
 1861 CCGAATTC

(2) INFORMATION FOR SEQ ID NO:2483:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 721 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2431:

1 CACCGCTCCT GTCAGCCAAC AAATATCCAT TGAGCGACAC CTGTGTCCCA GGTGCTGCTC
 61 TGGGCCCTGG GAGAAGTGCA TCAGTGGGCT TGGTAGTAGA GGGTAGGGAT GGAGTGAAGG
 121 GTAGGCAGGA AGAATGTCCC CAGGCTGGTA GGAGGTGGGG TGGGGGGTTT CAGTCTCAAA
 181 ACTCCCATGA AAACCAGAGA GAAGTTTACG AACTCCACCC AAGAGGCTGG GTTCTTAGGG
 241 CCCAGAGCTG CCTCCCCCA CCTAGAATG GGCTATAAAA GTCCCTTCCC AGCTACGTCC
 301 AGAGAAGAGC TGGAGGAAGT GAGAGGTCGG CTGGGGGTCC TCAAAGTGAG AGGGGAGCAG
 361 AGGATCCTCC CGTGCAGGCT GTGGATGTCA CTCACTTCCC AGCTGGTGAA GCCTCGCTGC
 421 AGAGATGCAT CTGCTCCAG CCTGGCAGG GGTCTGGCC AACTCGTCC TCGCCAGCC
 481 CTGTGAGGGC ACTGACCCAG GTAATAGTCC CTTAGACAGG CAAGGAGGAG GGAGGGGAAA
 541 TGAAGGGGA AGCACTTGGG TCTGGAGGG GGTCTGTGG CTTGCTGAAC CCTGAGTCCC
 601 CATCTCTTTG AACAGCCTCC CTTGGGCGC TGGAGACCTC GGTCTGCGA GACTGCATAG
 661 CAGAGGCCAA GTTGCTGGTG GATGCTGCCT ACAATTGGAC CCAGAAGAGG TGGACTTGGG
 721 TCTGGGGGCT GCATGGGCTT GGGAGGATCA GT

(2) INFORMATION FOR SEQ ID NO:2484:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2484:

1 TAATACCTTG TGGGGTCAGG GAGCCCATGT CCGTGCTGA TGTATTTC CCACCAGGTC
 61 CGGGCTGTCT CCAACCAGAT TGTGCGCTTC CCCAATGAGA GACTGACCTC CGACCGTGGC
 121 CGAGCCCTCA GTTTCATGCA GTGGGGCCAG TTCATTGACC ATGACCTGGA CTTCTCCCCG
 181 GAGTCCCCCG CCAGAGTGGC CTTCACTGCA GCGGTTGACT GTGAGAGGAC CTGCGCCAG
 241 CTGCCCCCCT GCTTTCCCAT CAAGGTACCT ACCCTCAGCC AATCTCCCAT GCCCTTGTGT
 301 GGCCTCCCCC AAAGGCAAGG TGCTGGGGGT GGGGATCTGG AAGACTGGAG CACCATCCTT
 361 AAGGAGCTGC CTGTGGAGCT AGGGTATGAG ACAGAGACAC AAG

(2) INFORMATION FOR SEQ ID NO:2485:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 481 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2485:

1 CACTGTCTCC TCTTCCATCT CAGATCCCAC CCAATGACCC CCGCATCAAG AACCAGCGTG
 61 ACTGCATCCC TTTCTTCCGC TCGGCACCCT CATGCCCCCA AAACAAGAAC AGAGTCCGCA
 121 ACCAGATCAA CGCGCTCACC TCCTTTGTGG ACGCCAGCAT GGTGTATGGC AGTGAGGTCT
 181 CCTCTCGCT GCGGCTCCGC AACCGGACCA ACTACCTGGG GCTGCTGGCC ATCAACCAGC
 241 GCTTTCAAGA CAACGGCCGG GCCCTGCTGC CCTTCGACAA CCTGCACGAT GACCCCTGTC
 301 TCCTCACCAA CCGCTCGGCG CGCATCCCCT GCTTCCTGGC AGGTGAGACA GGGAGGAAGG
 361 TGGTGTCTTC CCAGGAAACA GCCATCCCTG GGGTCCCAAC TGGGAAGCAA TGGTGGGATG
 421 TGGTGAAGGT ACATGGTTTG GGACCTCAGT ATTAGGCACA CCATAAGCAT GGATCTGTGC
 481 AC

(2) INFORMATION FOR SEQ ID NO:2486:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 301 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2486:

1 TGAAGAGATG GAGGTCCAGT GAGGGCCAGG AGTTTGGCCC ACCCGTCTC TCCCATCCCC

61 AGCCCTGGGT CTACCCTGGT AGAAAGACAT TTCTCTGGGA AAGGCTGCAG TAAATCTGAG
 121 CTTGGGGTTT TCAAGGTGAC ACCCGATCAA CGGAAACCCC CAAACTGGCA GCCATGCACA
 181 CCCTCTTTAT GCGAGAGCAC AACCGGCTGG CCACCGAGCT GAGACGCCTG AATCCCCCGT
 241 GGAATGGAGA CAACTGTAC AATGAGGCTC GGAAGATCAT GGGGGCCATG GTCCAGGTAA
 301 GGAGCTCTGC ATCCAGCAT CCCCC

(2) INFORMATION FOR SEQ ID NO:2487:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 421 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2487:

1 CTTTGATCT CCACCCACCA ATAGTAAAT AATGTTGTCA CATTTGACGT GATGACAATA
 61 AAGAAATATGT CTGAGCCACC CTTTGAAAAG GCAAGGGTAT GGGTGAGTAG CCTCTGGGGA
 121 ATGTTCTCTCC TGTCTTCCCT TCCAGATCAT CACCTACCGA GACTTTCTGC CCCTGGTTCT
 181 GGGCAAGGCC CGGGCCAGGA GAACCTGGG GCACTACAGG GGGTACTGCT CCAATGTGGA
 241 CCCACGGGTG GCCAATGTCT TCACCCTGGC CTTCCGCTTT GGCCACACAA TGCTCCAGCC
 301 CTTTATGTTT CGCTTGGACA GTCAGTACCG GGCCTCCGCA CCCAACTCGC ATGTCCCACT
 361 TAGTCTGCC TTCTTTGCCA GCTGGCGGAT CGTGTATGAA GGTGACCAGG TTTTCCAGGG
 421 GGCAATGGG GGTGAGGGT GGGAGCATGC CCTCCCCTAG GTGG

(2) INFORMATION FOR SEQ ID NO:2488:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2488:

1 TCCAGCTGCT TCATGTCTCT CCAGAACTCT GTTTCCTGAC AAACGTTACT AACATACCCG
 61 ACTGGCTTGT CCAGCTCTGG GCTAGCTTGG CATCATGTGA TAACCCAAGT AGCTTCCCAG
 121 AGGCTGGTCC AATCTGTGCT GCTCACATTC CCTGCCACCA GGGGGCATCG ACCCATCCT
 181 CCGGGGCTC ATGGCCACCC CTGCCAAGCT GAACCGTCAG GATGCCATGT TAGTGGATGA
 241 GCTCCGGGAC CGGCTGTTT GCAAGTGAG GAGGATTGGG CTGGACCTGG CAGCTCTCAA
 301 CATGCAACGA AGCCGGGACC ACGGCCTTCC AGGTGAGGGG GCTGTCCACC TCTTCTCCCA
 361 GCTTTGCTCG GGCCAGGCTG CTCAAGGGGT TCTGGGAAGA CCCTGGTACC

(2) INFORMATION FOR SEQ ID NO:2489:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 421 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2489:

1 CGACTGCCTG CTAGGTTCTG GTGGCAGAAA CGAGGTGTTT TCACCAAAAG ACAGCGCAAG
 61 GCCTGAGCA GAATTTCTT GTCTCGAATT ATATGTGACA ATACCGGTAT CACCACGGTT
 121 TCAAGGGACA TCTTCAGAGC CAACATCTAC CCTCGGGGCT TTGTGAATCG CAGCCGTATC
 181 CCCAGGTTGA ACCTATCAGC CTGGCGAGGG ACATGAGGCT TCTGCAGGTA AGGGGAGGCC
 241 ACCTCCAGCA CCTGGGCTG GTTAAGCCTC ACATCCTTCC CTGGATGGAT GGCTGAGTCC
 301 TCTTAGGTCT CTAAGCAGAG AAAACAGAAC TTGTCACTAG GTACTCTTTC CAAGTGGCTT
 361 CCAATGTGC TAGTTTCTGG GCTGACAGTC AATTCCAGGC CCTAGGACTT TGGGGGAA
 421 TTAGGAGCAT CCAACTA

(2) INFORMATION FOR SEQ ID NO:2490:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2521 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2490:

1 GAATTCCGTG GCCAGGACCC CTGCCAGGGC ACTGACCCAG CCTCCCCTGG GGCAGTGGAG
 61 ACCTCGGTCC TGCGAGACTG CATAGCAGAG GCCAAGTTGC TGGTGGATGC TGCTACAAT
 121 TGGACCCAGA AGAGCATCAA GCAGCGGCTT CGCAGCGGTT CAGCCAGCCC CATGGACCTC
 181 CTGTCCTACT TCAAACAACC GGTAGCAGCC ACCAGGACAG TTGTTCGGGC CGCAGATTAT
 241 ATGCATGTGG CTTTGGGGCT GCTTGAAGAG AAGTTACAAC CCCAGCGGTC CGGACCTTC
 301 ATTGTCACTG ATGTGCTAAC AGAACACAG CTGCGGCTGC TGTCACAGC TGGACGGTGT
 361 GCTCTCCGGG ACCAGGCCGA GCGCTGCAGC GACAAGTACC GCACCATCAC TGGACGGTGT
 421 AACACAAGA GGAGACCCTT GCTAGGGGCC TCCAACCAGG CTCTGGCTCG CTGGCTGCCC
 481 GCCGAGTATG AGGATGGGCT GTCGCTCCCC TTCGGCTGGA CCCCAGCAG GAGGCGCAAT
 541 GGCTTCCTTC TCCCTCTGT CCGGGCTGTC TCCAACCAGA TTGTGCGCTT CCAATGAG

601 AGACTGACCT CCGACCGTGG CCGAGCCCTC ATGTTTCATGC AGTGGGGCCA GTTCATTGAC
661 CATGACCTGG ACTTCTCCCC GGAGTCCCGG GCCAGAGTGG CCTTCACTGC AGGCGTTGAC
721 TGTGAGAGGA CCTGCGCCCA GCTGCCCCCG TGCTTTCCCA TCAAGATCCC ACCCAATGAC
781 CCCC GCATCA AGAACCAGCG TGACTGCATC CCTTTCTTCC GCTCGGCACC CTCATGCCCC
841 CAAAACAAGA ACAGAGTCCG CAACCAGATC AACGCGCTCA CCTCCTTTGT GGACGCCAGC
901 ATGGTGTATG GCAGTGAGGT CTCCCTCTCG CTGCGGCTCC GCAACCGGAC CAACTACCTG
961 GGGCTGCTGG CCATCAACCA GCGCTTTCAA GACAACGGCC GGGCCCTGCT GCCCTTCGAC
1021 AACCTGCACG ATGACCCCTG TCTCCTCACC AACCGCTCGG CGCGCATCCC CTGCTTCCTG
1081 GCAGGTGACA CCCGATCAAC GGAAACCCCC AAAGTGGCAG CCATGCACAC CCTCTTTATG
1141 CGAGAGCACA ACCGGCTGGC CACCGAGCTG AGACGCTGA ATCCCCTGAT GAATGGAGAG
1201 AAAGTGTACA ATGAGGCTCG GAAGATCATG GGGGCCATGG TCCAGATCAT CACCTACCGA
1261 GACTTTCTGC CCCTGGTTCT GGGCAAGGCC CGGGCCAGGA GAACCCTGGG GCACTACAGG
1321 GGGTACTGCT CCAATGTGGA CCCACGGGTG GCCAATGTCT TCACCCTGGC CTTCCGCTTT
1381 GGCCACACAA TGCTCCAGCC CTTTCATGTC CGCTTGGACA GTCAGTACCG GGCCTCCGCA
1441 CCCAACTCGC ATGTCCCACT TAGCTCTGCC TTCTTTGCCA GCTGGCGGAT CGTGATGAA
1501 GGGGGCATCG ACCCATCCT CCGGGGCTCG ATGGCCACCC CTGCCAAGCT GAACCGTCAG
1561 GATGCCATGT TAGTGGATGA GCTCCGGGAC CGGCTGTTTC GGCAAGTGAG GAGGATTGGG
1621 CTGGACCTGG CAGCTCTCAA CATGCAACGA AGCCGGGACC ACGGCCTTCC AGGGTACAAT
1681 GCTTGAGAGG GCTTCTGTGG GCTCTCCAG CCCCAGGATT TGGCACAGCT TAGCCGGGTG
1741 CTGAAAACCC AGGACTTGGC AAGGAAGTTC CTGAATTTGT ATGGAACACC TGACAACATT
1801 GACATCTGGA TTGGGGCCAT CGCTGAGCCT CTTTGGCCGG GGGCTCGAGT GGGGCTCTT
1861 CTGGCTTGTC TGTTCCGAGAA CCAGTTCAGA AGAGCCGAGA CGGAGACAGG TTCTGGTGGC
1921 AGAACGAGGT GTTTTCACCA AAGACAGCGC AAGGCCCTGA GCAGAAATTC CTTGTCTCGA
1981 ATTATATGTG ACAATACCGG TATCACCAGC GTTTCAGGG ACATCTTCAG AGCCAACATC
2041 TACCTCCGGG GCTTTGTGAA CTGCAGCCGT ATCCCAGGT TGAACCTATC AGCCTGGCGA
2101 GGGACATGAG GCTTCTGCAG GAGTCTATCC CAAGTCTCCA ACTTTTGGAG ACAAGGGGAA
2161 GGGGAGGACC ATGAGGCTGC CTTGTCTCCC TGAGCAAGT GCAGGCTCGT GACGCTTCTG
2221 CTGGCTACAG CTCAGAGCTG GGTTCCTTCC CCAGGAGTGA AGGCTGGGGG CTCCTATCAG
2281 CAATGGACCT TCCGCCTTGG GAGCCTCTTA GGTATTAGG TATGAATCAG CGCCACGTGC
2341 AAAGGCTTGG GAGCCAAGCC ATGTGCTCTT GCACCCAGG CAAGAAAAGT CAGCTGGAGG
2401 GTTTACAGCA CTTTCTACTG TTTCCAGCC CTCCCTCCCC TCCCTCACCA TGACTAAGAG
2461 ACCACTCGGT CCTAGCCTCC AGACACCCCA CAATACTCCT CTGAGCCTGA GGCCAGGCAG
2521 CATGCTCTGC TTCTACCAAT AAAGCACTGC CGGAATTC

(2) INFORMATION FOR SEQ ID NO:2491:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2491:

(2) INFORMATION FOR SEQ ID NO:2492:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 781 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2431:

1 GCATTTTTTC AAGTTTTATG ATTTATTTAA CTGTGGAAC AAAAATAAAC CAGAAACCAC
61 CACCTCTCAC GCCAAAGCTC ACACCTTCAG CCTCCAACAT GAAGGTCTCC GCAGCACTTC
121 TGTGGCTGCT GCTCATAGCA GCTGCCTTCA GCGCCAGGG GCTCGCTGGG CCAGCTTCTG
181 TCCCAACCAC CTGCTGCTTT AACCTGGCCA ATAGGAAGAT ACCCTTCAG CGACTAGAGA
241 GCTACAGGAG AATCACCAGT GGCAATGTC CCCAGAAAGC TGTGATCTTC AAGACCAAC
301 TGGCCAAGGA TATCTGTGCC GACCCCAAGA AGAAGTGGGT GCAGGATTCC ATGAAGTATC
361 TGGACCAAAA ATCTCCAAC CCAAGCCAT AAATAATCAC CATTTTGA ACCAAACCAG
421 AGCCTGAGTG TTGCCTAATT TGTTTTCCCT TCTTACAATG CATCTGAGG TAACCTCATT
481 ATCAGTCCAA AGGGCATGGG TTTTATTATA TATATATATA TTTTTTTTTT AAAAAAAAC
541 GTATTGCATT TAATTTATTG AGGCTTTAAA ACTTATCCTC CATGAATATC AGTTATTTT
601 AAAGTGTAAA GCTTTGTGCA GATTCTTTAC CCCCTGGGAG CCCCAATTCC ATCCCCTGTC
661 ACGTGTGGGC AATGTTCCCC CTCTCCTCTC TTCCTCCCTG GAATCTTGTA AAGGTCCTGG
721 CAAAGATGAT CAGTATGAAA ATGTCATTGT TCTTGTGAAC CCAAGTGTG ACTCATTAAA
781 TGAAGTAAA TGTTGTTTGA GGAATAC

(2) INFORMATION FOR SEQ ID NO:2492:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 241 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2492:

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1 ATGAAGGTCT CCGCAGCACT TCTGTGGCTG CTGCTCATAG CAGCTGCCTT CAGCCCCCAG
61 GGGCTCGCTG GGCCAGCTTC TGTCCCAACC ACCTGCTGCT TTAACCTGGC CAATAGGAAG
121 ATACCCCTTC AGCGACTAGA GAGCTACAGG AGAATCACCA GTGGCAAATG TCCCCAGAAA
181 GCTGTGATCT TCAAGACCAA ACTGGCCAAG GATATCTGTG CCGACCCCAA GAAGAAGTGG
241 GTGCAGGATT CCATGAAGTA TCTGGACCAA AAATCTCCAA CTCCAAAGCC ATAA
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(2) INFORMATION FOR SEQ ID NO:2493:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: 2641 nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2493:

```
1 CCACATATTC CCCTCCTTTT CCAAGGCAAG ATCCAGATGG ATTAAAAAAT GTACCAAGTC
61 CCTCCTACTA GCTTGCTTCT CTTCTGTTCT GCTTGACTTC CTAGGATCTG GAATCTGGTC
121 AGCAATCAGG AATCCCTTCA TCGTGACCCC CGCATGGGCA AAGGCTTCCC TGGAATCTCC
181 CACACTGTCT GTCCTCTATA AAAGGCAGGC AGATGGGCCA GAGGAGCAGA GAGGCTGAGA
241 CCAACCCAGA AACCACCACC TCTCAGCCCA AAGCTCACAC CTTCAGCCTC CAACATGAAG
301 GTCTCCGCGC CACTTCTGTG GCTGCTGCTC ATAGCAGCTG CCTTCAGCCC CCAGGGGCTC
361 GCTGGGCCAG GTAAGCCCCC CAACTCCTTA CAGGAAAGGT AAGGTAACCA CCTCCAGGCT
421 ACTAGGTCAG CAAGAATCTT TACAGACTCA CTGCAAATTC TCCATTTGAA AAATAGGGAA
481 ACAGGTTTTG TGGGTGGACA AGAAATGCCT CAACCGTCAC ATCCAGTCAC TGGAAGAGCC
541 AGAACTAGAA AGCTCCCGAG TCTTTTCCCC ACATTCAAGA GGGCCGCTGG GTGCATCCTT
601 ACCCAGCTAT CTTTACAGTG TTTGGGAATG GGGAAATGGCT CTGCTTACTT GTGGGCATGG
661 TGGGCATTTT TGGCAGTGGG AGAGAAGGAA AATCTGTTGA TTAGAAGCTC AGTATGTTAA
721 TTCGACTCCA GGACAGCTTT CAGAGACAGT GGCTAAGAGA AGAACGAGGT CCCAGGGGAT
781 TCTTTGAGGT GACTTATTTT GACACTCTTT GGGAAAGTTA TCTAGGAGAT TTGTTCCATA
841 ACTCATTTTC CCATACTCTG GTGACAAATT TACTGAGTGT ATCGGTCCCA CTGAGCCAGT
901 GCATAGCATG GTAACAAACA GTTCTAAATT ATCAATGACT TAACAGAATT AACTAAATTA
961 ACAAAAGTTA CTTTCTCACT TGTACTAAAT ATCTATAATG TATGGGCTCA GGCTTCTGCA
1021 TTTTATACTC AGGATTCTAG ACTGATGGAG AAGTTGCCAT GTGGGGGAAC ATTGATGGAT
1081 ACTGTGATAA AGCAGAAGAA AGCTCTCAGG AGTCTTGCAT AGGCAATGCA CTGTGGCTCA
1141 AAAATGACAC CCATCACTTT GTCTCCTTCT TTATTGATCA AAATAATTA ATGCCCTCAA
1201 CCAAACAAAA GTGGCCAAGA AATGCAAGTC TACCTTGTGT CTCAAAACAG AGGATGGAGA
1261 ATATTTGGTG AAAATTACCA TGACCATCAC ATGGCCACGT AGGTCTTTAT AATGACAGAG
1321 CTAGCATTGG TCACATTGAC CAAGCTTTGT CCATACACTC TACAGTAATG ATGAGTCTTC
1381 AGTGACACAG GGAGGATGCT GAAGACACAG GACAGCATCC TCCAGACACA TAAGACTTCA
1441 GAGCAGAGGG ATTCTCCCTC CACCTCTCGC AATTCCTTGC TTTCTCCTAA CTTCTCTTAC
1501 AAAGTCATGC TTGGAATGT CTATGTATCA TCATGTGGCT CATTTTTTTC TCTGTTTCAAT
1561 TTTTTTCCCC AAAATTCAGC TTCTGTCCCA ACCACCTGCT GCTTAACTT GGGCAATAGG
1621 AAGATACCCC TTCAGCGACT AGAGAGCTAC AGGAGAATCA CCAGTGGCAA ATGTCCCCAG
1681 AAAGCTGTGA TGTAAGTAAA TAAAGTTCAC CCTCCCTAG ACAAAAAAAT AATGTCTAGG
1741 GCACAGAGTC AAGAACTGTG GGAGTCATAG ACTCTGATAG TTTGACCTCT ATGGTCCAAT
1801 TCATTAATTT TCACAAGTGA GTGTTCACTC CCAGCTCCCT GCCTGGGAGA TTGCTGTAGT
1861 CATATCAATT TCTTCAAGTC AAGAGCAAGG ATGGTTTAC TGGGCCTTTA AGAGCAGCAA
1921 CTAACCCCAAG AGTCTCATCC TTCCTCTCTT CCGTAGCAAC CCTTTGTCCA GGGGCAGATG
1981 GTCCTTAAAT ATTTAGGGTC AAATGGGCAG AATTTTCAAA AACAATCCTT CCAATTGCAT
2041 CCTGATTCTC CCCACAGCTT CAAGACCAAA CTGGCCAAGG ATATCTGTGC CGACCCCAAG
2101 AAGAAGTGGG TGCAGATTTC CATGAAGTAT CTGGACCAA AATCTCCAAC TCCAAAGCCA
2161 TAAATAATCA CCATTTTGA AACCAACCA GAGCTGAGT GTTGCCTAAT TTGTTTTCCC
2221 TTCTTACAAT GCATTCTGAG GTAACCTCAT TATCAGTCCA AAGGGCATGG GTTTTATTAT
2281 ATATATATAT ATATATTTT TTTTAAAAA AAACGTATTG CATTTAATTT ATTGAGGCTT
2341 TAAAACTTAT CCTCCATGAA TATCAGTTAT TTTTAACTG TAAAGCTTTG TGCAGATTCT
2401 TTACCCCTCG GGAGCCCCAA TTCGATCCCC TGTACGCTGT GGGCAATGTT CCCCCTCTCC
2461 TCTCTTCTCT CCTGGAATCT TGTAAAGGTC CTGGCAAAGA TGATCAGTAT GAAAATGTCA
2521 TTGTTCTTGT GAACCCAAAG TGTGACTCAT TAAATGGAAG TAATGTTGTT TTAGGAATAC
2581 ATAAAGTATG TGCAATATTT ATTATAGTCA CTAGTTGTAA TTTTTTTGTG GGAAATCCAC
2641 ACTGAGCTGA GGGGG
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(2) INFORMATION FOR SEQ ID NO:2494:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3663 base pairs

(B) TYPE: 2641 nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2494:

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1 GCATTTTTTC AAGTTTTATG ATTTATTTAA CTTGTGGAAC AAAAATAAAC CAGAAACCAC
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61 CACCTCTCAC GCCAAAGCTC ACACCTTCAG CCTCCAACAT GAAGGTCTCC GCAGCACTTC
121 TGTGGGTGCT GCTCATAGCA GCTGCCTTCA GCGCCAGGG GCTCGCTGGG CCAGCTTCTG
181 TCCCAACCAC CTGCTGCTTT AACCTGGCCA ATAGGAAGAT ACCCCTTCAG CGACTAGAGA
241 GCTACAGGAG AATCACCAGT GGCAAATGTC CCCAGAAAGC TGTGATCTTC AAGACCAAAC
301 TGGCCAAGGA TATCTGTGCC GACCCCAAGA AGAAGTGGGT GCAGGATTCC ATGAAGTATC
361 TGGACAAAAA ATCTCCAACCT CCAAAGCCAT AAATAATCAC CATTTTTTGA ACCAAACCAG
421 AGCCTGAGTG TTGCCTAATT TGTTTTCCCT TCTTACAATG CATTCTGAGG TAACCTCATT
481 ATCAGTCCAA AGGGCATGGG TTTTATTATA TATATATATA TTTTTTTTTT AAAAAAAAC
541 GTATTGCATT TAATTTATTG AGGCTTTAAA ACTTATCCTC CATGAATATC AGTTATTTTT
601 AAAGTGTAAA GCTTTGTGCA GATTCTTTAC CCCCTGGGAG CCCCATTTCG ATCCCTGTGC
661 ACGTGTGGGC AATGTTCCCC CTCTCCTCTC TTCCTCCCTG GAATCTTGTA AAGGTCTGG
721 CAAAGATGAT CAGTATGAAA ATGTCATTGT TCTTGTGAAC CCAAAGTGTG ACTCATTAAC
781 TGGAAAGTAA TGTGTTTTTA GGAATACATG AAGGTCT CCGCAGCACT TCTGTGGCTG
801 CTGCTCATAG CAGCTGCCTT CAGCCCCCAG GGGCTCGCTG GGCCAGCTTC TGTCCCAACC
861 ACCTGCTGCT TTAACCTGGC CAATAGGAAG ATACCCCTTC AGCGACTAGA GAGCTACAGG
921 AGAATCCACA GTGGCAAATG TCCCAGAAA GCTGTGATCT TCAAGACCAA ACTGGCCAA
981 GATATCTGTG CCGACCCCAA GAAGAAGTGG GTGCAGGATT CCATGAAGTA TCTGGACCAA
1005 AAATCTCCAA CTCAAAGCC ATAA
1065 CCACATATTC CCTCCTTTT CCAAGGCAAG ATCCAGATGG ATTAATAAAT GTACCAAGTC
1121 CCTCTACTA GCTTGCCTCT CTTCTGTTCT GCTTGACTTC CTAGGATCTG GAATCTGGTC
1181 AGCAATCAGG AATCCCTTCA TCGTGACCCC CGCATGGGCA AAGGCTTCCC TGGAACTCC
1241 CACACTGTCT GCTCCCTATA AAAGSCAGGC AGATGGGCCA GAGGAGCAGA GAGGCTGAGA
1301 CCAACCCAGA AACCCACC TCTCACGCCA AAGCTCACAC CTTGAGCTC CAACATGAAG
1361 GTCTCCGCAG CACTTCTGTG GCTGCTGCTC ATAGCAGCTG CCTTCAGCCC CCAGGGGCTC
1421 GCTGGGCCAG GTAAGCCCC CAACTCCTTA CAGGAAAGGT AAGGTAACCA CCTCCAGGCT
1481 ACTAGGTCAG CAAGAATCTT TACAGACTCA CTGCAAATTC TCCATTTGAA AAATAGGGAA
1541 ACAGGTTTTG TGGGTGGACA AGAATGCCT CAACCGTCAC ATCCAGTCAC TGGAAGAGCC
1601 AGAAGTAGAA AGCTCCCGAG TCTTTTCCCC ACATTCAAGA GGGCCGCTGG GTGCATCCTT
1661 ACCCAGCTAT CCTTACAGTG TTTGGGAATG GGAATGGCT CTGTCTTACT GTGGGCTGG
1721 TGGGCATTTT TGGCAGTGGG AGAGAAGGAA AATCTGTTGA TTAGAAGCTC AGTATGTTAA
1781 TTCGACTCCA GGACAGCTTT CAGAGACAGT GGCTAAGAGA AGAACGAGGT CCCAGGGGAT
1841 CTCTTGAGGT GACTTATTTT GACTCTTTT GGGAAAGTTA TCTAGGAGAT TTGTTCCATA
1901 ACTCATTTTC CCATACTCTG GTGACAAATT TACTGAGTGT ATCGGTCCCA CTGAGCCAGT
1961 GCATAGCATG GTAACAAACA GTTCTAAATT ATCAATGACT TAACAGAATT AACTAAATTA
2021 ACAAAGTTA CTTTCTCACT TGTACTAAAT ATCTATAATG TATGGGCTCA GGCTTCTGCA
2081 TTTTATACTC AGGATTCTAG ACTGATGGAG AAGTTGCCAT GTGGGGGAAC ATTGATGGAT
2141 ACTGTGATAA AGCAGAAGAA AGCTCTCAGG AGTCTTGCAAT AGGCAATGCA CTGTGGCTCA
2201 AAAATGACAC CCATCACTTT GTCTCCTTCT TTATTGATCA AAATAATTA ATGCCTCCAA
2261 CCAACAAAAA GTGGCCAAGA AATGCAAGTC TACCTTGTGT CTCAAAACAG AGGATGGAGA
2321 ATATTTGGTG AAAATTACCA TGACCATCAC ATGGCCACGT AGGTCTTTAT AATGACAGAG
2381 CTAGCATTTG TCACATTGAC CAAGCTTTGT CCATACACTC TACAGTAATG ATGAGTCCTC
2441 AGTGCACAGG GGAGGATGCT GAAGACACAG GACAGCATCC TCCAGACACA TAAGACTTAC
2501 GAGCAGAGGG ATTCTCCCTC CACCTCTCGC AATTCCTTGC TTTCTCTAA CTCTCTTAC
2561 AAAGTCATGC TTGGAAATGT CTATGTATCA TCATGTGGCT CATTTTTTTC TCTGTTTATT
2621 TTTTTTCCCC AAAATTACAG TTCTGTCCCA ACCACCTGCT GCTTTAACCT GGCCAATAGG
2681 AAGATACCCC TTCAGCGACT AGAGAGCTAC AGGAGAATCA CCAGTGGCAA ATGTCCCCAG
2741 AAAGCTGTGA TGTAAGTAAA TAAAGTTCAC CCTCCCCTAG ACAAATAAAT AATGTCTAGG
2801 GCACAGAGTC AAGAACTGTG GGAGTCATAG ACTCTGATAG TTTGACCTCT ATGGTCCAAT
2861 TCATTAATTT TCACAAGTGA GTGTTCACTC CCAGCTCCCT GCCTGGGAGA TTGCTGTAGT
2921 CATATCAATT TCTTCAAGTC AAGAGCAAAG ATGGTTTTAC TGGGCCTTTA AGAGCAGCAA
2981 CTAACCCAAG AGTCTCATCC TTCTCCTCT CCGTAGCAAC CCTTTGTCCA GGGGCAGATG
3041 GTCCTTAAAT ATTTAGGGTC AAATGGGCAG AATTTTCAA AACAATCCTT CCAATTGCAT
3101 CCTGATTCTC CCCACAGCTT CAAGACCAA CTGGCCAGG ATATCTGTGC CGACCCCAAG
3161 AAGAAGTGGG TGCAGGATTC CATGAAGTAT CTGGACCAA AATCTCCAAC TCCAAAGCCA
3221 TAAATAATCA CCATTTTGA AACCAACCA GAGCCTGAGT GTTGCCCTAAT TTGTTTTCCC
3281 TTCTTACAAT GCATTCTGAG GTAACCTCAT TATCAGTCCA AAGGGCATGG GTTTTATTAT
3341 ATATATATAT ATATATTTTT TTTTAAAAA AAACGTATTG CATTTAATTT ATTGAGGCTT
2341 TAAACTTAT CCTCCATGAA TATCAGTTAT TTTTAACTG TAAAGCTTTG TGCAGATTCT
2401 TTACCCCTG GGAGCCCAA TTGATCCCC TGTCACGTGT GGGCAATGTT CCCCTCTCC
2461 TCTCTTCCTC CCTGGAATCT TGTAAAGGTC CTGGCAAAGA TGATCAGTAT GAAAATGTCA
2521 TTGTTCTTGT GAACCCAAAG TGTGACTCAT TAAATGGAAG TAATGTTGTT TTAGGAATAC
2581 ATAAAGTATG TGCATATTTT ATTATAGTCA CTAGTTGTAA TTTTTTGTG GGAATCCAC
2641 ACTGAGCTGA GGGG

(2) INFORMATION FOR SEQ ID NO:2495:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 61 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2495:

1 GCCAGGTGCG TGTGGTCCA CGCCGCCGT CGCGCGCCC GCGGCTCAG CGTCCGCCG
61 CGCCATGGGA

(2) INFORMATION FOR SEQ ID NO:2496:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 841 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2496:

1 GGCCGGAGCC GAGCCGGGGT CGGGCAGCAG CAGGGACCCC CCAGAGGCGG GGCCTGTGGG
61 ACCGCTATGG GCGTGGAGAT CGAGACCATC TCCCCCGGAG ACGGAAGGAC ATTCCCCAAG
121 AACGGSCAAA CGTGTGTGGT GCACTACACA GGAATGCTCC AAAATGGGAA GAAGTTTGAT
181 TCATCCAGAG ACAGAAACAA ACCTTTCAAG TTCAGAATTG GCAAACAGGA AGTCATCAAA
241 GGTTTTGAAG AGGTCGAGC CCAGATGAGC TTGGGGCAGA GGGCGAAGCT GACCTGCACC
301 CCTGATGTGG CATATGGAGC CACGGGCCAC CCCGGTGTCA TCCCTCCCAA TGCCACCCCTC
361 ATCTTTGACG TGGAGCTGCT CAACTTAGAG TGAAGGCAGG AAGGAAGTCA AGGTGGCTGG
421 AGATGGCTGC TGCTACCCCT CCTAGCCTGC TCTGCCACTG GGACGGCTCC TGCTTTTGGG
481 GCTCTTGATC AGTGTGCTAA CTCACCTGCC TCATGGCATC ATCCATTCTC TCTGCCCAAG
541 TTGCTCTGTA TGTGTTCTG AGTGTTCATG CGAATTCTTG CTTGAGGAAA CTTGCGTTGC
601 AGATTGAAGC ATTTCAAGTT GTGCATTTT TGTGATGCAT GTAGTAGCCT TTCCTGATGA
661 CAGAACACAG ATCTCTTGTT CGCACAATCT AACTGCCTT ACCTTCACTT AAACCACACA
721 CACAAGGTGC TCAGACATGA AATGTACATG GCGTACCGTA CACAGAGGGA CTTGAGCCAG
781 TTACCTTTGC TGCTACTTTC TCTCTTATAA ATTCTGTTAG CTGCTCACTT AAACAATGTC
841 CTCTTTGAGA AAATGTAAAA TAAAGGCTCT GTGCTTGACA

(2) INFORMATION FOR SEQ ID NO:2497:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1501 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2497:

1 GAATTCGGGC CGCCGCCAGG TCGTGTGG TCCACGCCG CCGTCGCGCC GCGCGCCCGC
61 TCAGCGTCCG CCGCCGCCAT GGGAGTGCAG GTGGAAACCA TCTCCCCAGG AGACGGGCGC
121 ACCTTCCCCA AGCGCGGCCA GACCTGCGTG GTGCACTACA CCGGGATGCT TGAAGATGGA
181 AAGAAATTTG ATTCTCCCG GGACAGAAAC AAGCCCTTTA AGTTTATGCT AGGCAAGCAG
241 GAGGTGATCC GAGGCTGGGA AGAAGGGGTT GCCCAGATGA GTGTGGGTCA GAGAGCCAAA
301 CTGACTATAT CTCAGATTA TGCCTATGGT GCCACTGGGC ACCCAGGCAT CATCCCACCA
361 CATGCCACTC TCGTCTTCGA TGTGGAGCTT CTAAGACTGG AATGACAGGA ATGGCCTCCT
421 CCCTTAGCTC CCTGTTCTTG GATCTGCCAT GGAGGGATCT GGTGCCTCCA GACATGTGCA
481 CATGAGTCCA TATGGAGCTT TTCCTGATGT TCCACTCCAC TTGTATAGA CATCTGCCCT
541 GACTGAATGT GTTCTGTAC TCAGCTTTGC TTCCGACACC TCTGTTTCCT CTTCCCTTTT
601 CTCCTCGTAT GTGTGTTTAC CTAAGCTATA TGCCATAAAC CTCAAGTTAT TCATTTTATT
661 TTGTTTTCAT TTTGGGGTGA AGATTCAAGT TCAGTCTTTT GGATATAGGT TTCCAATTAA
721 GTACATGGTC AAGTATTAAC AGCACAAGTG GTAGGTAAAC ATTAGAATAG GAATTGGTGT
781 TGGGGGGGGG GTTGTCAAGA ATATTTTATT TTAATTTTTT GGATGAAATT TTTATCTATT
841 ATATATTAAA CATTCTTGCT GCTGCGCTGC AAAGCCATAG CAGATTTGAG GCGCTGTTGA
901 GAGTGAATTT ACTCTCAAG TTGAGAGATG TCTTTGGGTT AAATTAAGA CCTCACCTAA
961 AACTGAGGTG GGGATGGGGA GAGCCTTTC CTCCACCATT CCCACCCACC CTCCCTTTAA
1021 ACCCTCTGCC TTTGAAAGTA GATCATGTTT ACTGCAATGC TGGACACTAC AGGTATCTGT
1081 CCCTGGGCCA GCAGGGACCT CTGAAGCCTT CTTTGTGGCC TTTTTTTTTT TTCATCCTGT
1141 GGTTTTTCTA ATGGACTTTC AGGAATTTTG TAATCTCATA ACTTTCCAAG CTCCACCACT
1201 TCCTAAATCT TAAGAACTTT AATTGACAGT TTCAATTGAA GGTGCTGTTT GTAGACTTAA
1261 CACCCAGTGA AAGCCCAGCC ATCATGACAA ATCCTTGAAT GTTCTCTTAA GAAAATGATG
1321 CTGGTCATCG CAGCTTCAGC ATCTCCTGTT TTTTGATGCT TGGCTCCCTC TGCTGATCTC
1381 AGTTTCCTGG CTTTTCCTCC CTCAGCCCTT TCTCACCCCT TTGCTGTCCT GTGTAGTGAT
1441 TTGGTGAGAA ATCGTTGCTG CACCCTTCCC CCAGCACCAT TTATGAGTCT CAAGTTTTAT
1501 TATTGCAATA AAAGTGCTTT ATGCCGAAT TC

(2) INFORMATION FOR SEQ ID NO:2498:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 541 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2498:

1 GCCGCCGCCA TGGGAGTGCA GGTGAAACC ATCTCCCCAG GAGACGGGCG CACCTTCCCC

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61 AAGCGCGGCC AGACCTGCGT GGTGCACTAC ACCGGGATGC TTGAAGATGG AAAGAAATTT
121 GATTCTCTCC GGGACAGAAA CAAGCCCTTT AAGTTTATGC TAGGCAAGCA GGAGGTGATC
181 CGAGGCTGGG AAGAAGGGGT TGCCAGATG AGTGTTGGTC AGAGAGCCAA ACTGACTATA
241 TCTCCAGATT ATGCTATGG TGCCACTGGG CACCCAGGCA TCATCCCACC ACATGCCACT
301 CTCGTCTTCG ATGTGGAGCT TCTAAACTG GAATGACAGG AATGGCTCC TCCCTTAGCT
361 CCCTGTTCTT GGATCTGCCR TGGAGGGATC TGGTGCTCC AGACATGTGC ACATGARTCC
421 ATATGGAGCT TTTCTGATG TTCCACTCCA CTTTGTATAG ACATCTGCCC TGACTGAATG
481 TGTCTGTCA CTCAGCTTTG CTTCCGACAC CTCTGTTTCC TCTTCCCCTT TCTCTCGTA
541 TGTGTGTTTA CCTAACTAT ATGCCATAAA CCTCAAGTTA TTCA

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(2) INFORMATION FOR SEQ ID NO:2499:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3135 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2499:

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1 GCCAGGTCGC TGTGGTCCA CGCCGCCCGT CGCGCCGCC GCCCCTCAG CGTCCGCCGC
61 CGCCATGGGA GGCCGGAGCC GAGCCGGGT CGGCGAGCAG CAGGGACCCC CCAGAGGCGG
121 GGCCTGTGGG ACCGCTATGG GCGTGAGAT CGAGACCATC TCCCCGGAG ACGGAAGGAC
181 ATTCCCAAG AAGGGCCAAA CGTGTGTGGT GCACTACACA GGAATGCTCC AAAATGGGAA
241 GAAGTTTGAT TCATCCAGAG ACAGAAACAA ACCTTTCAAG TTCAGAATTG GCAAACAGGA
301 AGTCATCAA GGTTTTGAAG AGGGTGCAGC CCAGATGAGC TTGGGGCAGA GGGCGAAGCT
361 GACCTGCACC CCTGATGTGG CATATGGAGC CACGGGCCAC CCCGGTGTCA TCCCTCCCAA
421 TGCCACCCTC ATCTTTGACG TGGAGCTGCT CAACTTAGAG TGAAGGCAGG AAGGAAGTCA
481 AGGTGGCTGG AGATGGCTGC TGCTACCCTT CCTAGCCTGC TCTGCCACTG GGACGGCTCC
541 TGCTTTTGGG GCTCTTGATC AGTGTGCTAA CCTCACTGCC TCATGGCATC ATCCATTCTC
601 TCTGCCAAG TTGCTCTGTA TGTGTTCTGC AGTGTTCATG CGAATCTTG CTTGAGGAAA
661 CTTCCGTTGC AGATTGAAGC ATTTCAAGTT GTGCATTTTG TGTGATGCAT GTAGTAGCCT
721 TTCCTGATGA CAGAACACAG ATCTCTTGTG CGCACAATCT AACTGCGCTT ACCTTCACTT
781 AAACCACACA CACAAGGTGC TCAGACATGA AATGTACATG GCGTACCGTA CACAGAGGGA
841 CTTGAGCCAG TTACCTTTGC TGTCACTTTC TCTCTATAA ATTCTGTAG CTGCTCACTT
901 AAACAATGTC CTCTTTGAGA AAATGTAAAA TAAAGGCTCT GTGCTTGACA GAATTCGGGC
961 CGCCGCCAGG TCGCTGTTGG TCCACGCCGC CCGTCGCGCC GCCCGCCGCC
1011 TCAGCGTCCG CCGCCGCCAT GGGAGTGCAG GTGGAAACCA TCTCCCAGG AGACGGGCGC
1171 ACCTTCCCCA AGCGCGGCCA GACCTGCGTG GTGCACTACA CCGGGATGCT TGAAGATGGA
1231 AAGAAATTTG ATTCTCCCG GGACAGAAAC AAGCCCTTTA AGTTTATGCT AGGCAAGCAG
1291 GAGGTGATCC GAGGCTGGGA AGAAGGGGTT GCCCAGATGA GTGTGGGTCA GAGAGCCAAA
1351 CTGACTATAT CTCCAGATTA TGCTATGGT GCACTGGGC ACCCAGCAT CATCCCACCA
1411 CATGCCACTC TCGTCTTCGA TGTGGAGCTT CTAAGACTGG AATGACAGGA ATGGCCTCCT
1471 CCCTTAGCTC CCTGTCTTG GATCTGCCAT GGAGGGATCT GGTGCCTCCA GACATGTGCA
1531 CATGAGTCCA TATGGAGCTT TTCCTGATGT TCCACTCCAC TTGTATAGA CATCTGCCCT
1591 GACTGAATGT GTTCTGTGAC TCAGCTTTGC TTCCGACACC TCTGTTTCTT CTTCCCCTTT
1651 CTCTCGTAT GTGTGTTTAC CTAAACTATA TGCCATAAAC CTCAAGTTAT TCATTTTATT
1711 TTGTTTTTCA TTTGGGGTGA AGATTCAAGT TCAGTCTTTT GGATATAGT TTCCAATTAA
1771 GTACATGGTC AAGTATTAAC AGCACAAGTG GTAGGTTAAC ATTAGAATAG GAATTGTGTG
1831 TGGGGGGGGG GTTTGCAAGA ATATTTTATT TTAATTTTTT GGATGAAAT TTTATCTATT
1891 ATATATTAAA CATTCTTGCT GCTGCGCTGC AAAGCCATAG CAGATTTGAG GCGCTGTTGA
1951 GGAAGTGAAT ACTCTCCAAG TTGAGAGATG TCTTTGGGTT AAATTAAAAG CCTACCTAA
2011 AACTGAGGTG GGGATGGGGA GAGCCTTTGC CTCCACCATT CCCACCCACC CTCCCCTTAA
2071 TCTCTGCTG TTTGAAAGTA GATCATGTTT ACTGCAATGC TGGACACTAC AGGTATCTGT
2131 CCCTGGGCCA GCAGGGACCT CTGAAGCCTT CTTTGTGGCC TTTTTTTTTT TTCATCCTGT
2191 GGTTTTTTCTA ATGGACTTTC AGGAATTTTG TAATCTCATA ACTTTCCAAG CTCCACCACT
2251 TCCTAAATCT TAAGAACTTT AATTGACAGT TTCAATTGAA GGTGCTGTTT GTAGACTTAA
2331 CACCCAGTGA AAGCCAGGCC ATCATGACAA ATCCTTGAAT GTTCTCTTAA GAAAATGATG
2391 CTGGTCATCG CAGCTTCAGC ATCTCCTGTT TTTTGTGCT TGGCTCCCTC TGCTGATCTC
2451 AGTTTCTTGG CTTTCTCTCC CTCAGCCCCT TCTCACCCTT TTGCTGTCTT GTGTAGTGAT
2511 TTGGTGAGAA ATCGTTGCTG CACCTTCCC CCAGCACCAT TTATGAGTCT CAAGTTTAT
2561 TATTGCAATA AAAGTGCTTT ATGCCGAAT TC
2594 GCCGCCGCCA TGGGAGTGCA GGTGGAAACC ATCTCCCCAG GAGACGGGCG CACCTTCCCC
2655 AAGCGCGGCC AGACCTGCGT GGTGCACTAC ACCGGGATGC TTGAAGATGG AAAGAAATTT
2715 GATTCTCTCC GGGACAGAAA CAAGCCCTTT AAGTTTATGC TAGGCAAGCA GGAGGTGATC
2775 CGAGGCTGGG AAGAAGGGGT TGCCAGATG AGTGTTGGTC AGAGAGCCAA ACTGACTATA
2835 TCTCCAGATT ATGCTATGG TGCCACTGGG CACCCAGGCA TCATCCCACC ACATGCCACT
2895 CTCGTCTTCG ATGTGGAGCT TCTAAACTG GAATGACAGG AATGGCTCC TCCCTTAGCT
2955 CCCTGTTCTT GGATCTGCCR TGGAGGGATC TGGTGCTCC AGACATGTGC ACATGARTCC
3015 ATATGGAGCT TTTCTGATG TTCCACTCCA CTTTGTATAG ACATCTGCCC TGACTGAATG
3075 TGTCTGTGCA CTCAGCTTTG CTTCCGACAC CTCTGTTTCC TCTTCCCCTT TCTCCTCGTA
3135 TGTGTGTTTA CCTAACTAT ATGCCATAAA CCTCAAGTTA TTCA

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(2) INFORMATION FOR SEQ ID NO:2500:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7621 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2500:

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1 AACAAAGAAA GCGTTGGTAG CTCTGGTGAA TCCCAAAAGA ATGTGGCAGT TGCTAGCCAT
61 GCTCCTGAAT ATGTATAAAC AGTACATCAT ATGACTAAGA GTTTGACTTA GGGGTTAGAT
121 TTTATGTGTT TGAACCCCAA ATTAGTTATT TAATAGTTGG CACCCCAAAA CAAGTTACTT
181 AACCTCACTA AGGTTCAATT TTCCTGTTTA TAAAATGTAG ATAGTGATAG TATGTACTTT
241 ATAGGATTAT TGTGAAAAT AAATGAAATA TCAGATTTAT TTAGGATAAC ACCTGGCATA
301 TGTTTGGTAT TCAGAATTAG TTGCTGCTGT TTTATTCTGC TCTCCCTTGC ATCCCACTTT
361 TCTAAGTTGT AAATAAATA GTTGACACA GATTGACAGA TTAAGAAAGG CTGTGATTG
421 TGCTAGACCT ATGCTATGCT CTCTGTCTCA CCAGATTCCA GGTGTATATG TGGAGGTGGG
481 ATAGGGAGTG GAGTAAGTGG GTAAATATTA AATTGCCAGC TTGGGCACCA TCCTGAATAT
541 TATCTCTAAA GAAAGAAGCA AAACCAGGCA CAGCTGATGG GTTAACCAGA TATGATACAG
601 AAAACATTTT CTTCTGCTTT TTGGTTTAA GCCTATATTT GAAGCCTTAG ATCTCTCCAG
661 CACAGTAAGC ACCAGGAGTC CATGAAGAAG ATG

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(2) INFORMATION FOR SEQ ID NO:2501:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7621 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2501:

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1 GATCTTCATG TGAATGACT GGTTCATTC AATAGACTTA ATTCAGCAGT CTGTGGGGAA
61 GAGCAAGGTA TGATAGAATG GTTCCTCAAG TGCTTCAGAT GTGAAGTGGG TTAAATATA
121 CTGTCCCTGT CTTCTTCAGA GTTTTGGTAA AGATAAAATA GGACACTCAT TTAAGAGCAA
181 TCTTTGCAAA TGACAAGCCA CTATAGACAT TAATAGAGTT TTCATTTCCT GTATTATCAT
241 TAATATCAGA TCCTGGAAGA AGGTTGAGCC TTGACCTAGA GCAAAAAAAC AGAAGAATTA
301 GTAAAGGAAT CCTGGAGAAA GCCCTGCTGT TGTATTTAAA GGAGAAAGGG AGATCATGTT
361 GGGAAATTAT AATATTAATA GTAAACAAAA GCTAGGAAGT AAAATAAAAT AAATTATATG
421 GCCTAGATCC CCATAAGTAA TGGTTAACT TCTGCCTTCC TGTGTTCTGA GCCAGATTAG
481 GGCACAGTAG AGAAAGAGGA GTCTCTGAAA ATGTTTCCAA TTTCCCTGGT CAGACAGCGG
541 ATCATCAGTG AATCAGATGA AAATTGTGG ATTTATGCAC TAACTGATCA GCAGGAATT
601 AAACAAGAAA AGCGTTGGTA GCTCTGGTGA ATCCCAAAAG AATTGGCAGC TTGCTAGCCA
661 TGCTCCTGAA TATGTATAAA CAGTACATCA TATGACTAAG AGTTGACTT AGGGGTTAGA
721 TTTTATGTGT TTGAACCCCA AATTAGTTAT TTAATAGTTG GCACCCCAAA ACAAGTTACT
781 TAACCTCACT AAGATTCAGT TTTCTGTGTT ATAAAATGTA GATAGTGATA GTATGTACTT
841 TATAGGATTA TTGTGAAAAA TAAATGAAAT ATCAGATTTA TTTAGGATAA CACCTGGCAT
901 ATGTTTGGTA TTCAGTAATT AGTTGCTGCT GTTTTATTCT GCTCTCCCTT GCATCCCACT
961 TTTCTAAGTT GTAAACTAAA TAGTTGTACA CAGATTGACA GATTAAGAAA GGCTTGTGAT
1021 TGTGCTAGAC CTATGCCTCT CTCTCACCAG ATTCCAGGTG TATATGTGGA GGTGGGATAG
1081 GGAGTGGAGT AAGTGGGTAA ATATTAAATT GCCCAGTTGG GCACCATCCT GAATATTATC
1141 TCTAAAGAAA GAAGCAAAAC CAGGCACAGC TGATGGGTAA ACCAGATATG ATACAGAAAA
1201 CATTTCCTTC TGCTTTTGGG TTTTAAGCCT ATATTGAAG CCTAGATCT CTCCAGCACA
1261 GTAAAGCACA GGAGTCCATG AAGAAGATGG CTCCTGCCAT GGAATCCCCT ACTCTACTGT
1321 GTGTAGCCTT ACTGTTCTTC GGTAAAGTAGA GATTCAATTA CCCCTCCCAG GGAGGCCCAA
1381 ATGAATTTGG GGAGCAGCTG GGGTAGGAAC CTTTACTGTG GGTGGTGAAT TTTTCTAGGA
1441 CATGTGCAAA CTATTGGGCA TTTCCAGGG ACTCTGTAGT GGAGCCAAGC TAGAAAGCAG
1501 AGGCAAGTGG GCTGAGCAAC ACCTAAGGAG GAAGCCAGAC TGAAGCCTTG GTTCCTTGCA
1561 TTTGCTCTGG CATCTTCCAG AGTGCAAATT TCCTACCAAG GTAATGAGGG TAGAGGAGAG
1621 AAAGAAGCTC TTTCTTCCCC TGATTCTCAT TCCTGAAAAG ACGGTTGGTC CTTAAATTC
1681 CATGGATGTA GATCTTATCC CCACACCCAG ATTCTAGTCC TCTGGAGATA AAGAAGACTG
1741 CTGGACACTA ATGTATCCTC TCTGGACTTT TGCAGCTCCA GATGGCGTGT TAGCAGGTGA
1801 GTCCTCTGTT CTTGTTCCCT TGGTGTATCA ACATGCTGTG GCATTGCTTT CCTCTCACTA
1861 TTTCTTTCGT CCCATCACTT CTGCTTCTTA ATGAGCATGA ATCTGTTCTT TGGCCAGACT
1921 ACTTTCCTTC TCCACCTTGC CTTGTCTTTC TTTTTTCCCC TGATTCATTG CATTCTCTCA
1981 AGTCATTCTC TCCTCTGTTT TAGTCAATAA CCATGCTGTG TGCACATATA CATGTCTCAT
2041 TCTCTCTCCT AGACACTTTC GCTGATCTC GCTCAATAAT TACATTATTA TTATTATTGC
2101 CATTTTATAA TTGAGGATGC TGAAACTCAG TGATTTTCTG GTGGTTACAT GGCTAAGGAA
2161 CTGGATTTC ACGTAAGTTC CTTGGATCTA AGTCCAGTTC TCTTCTGACT ATATCACCCCT
2221 TTTGTTATCA CCATGTATCT ACTTCTTTGG TCTCTGTTCA AATTGCACT ACATCCCCCT
2281 GTTCCAGGAA GCCATTCAAG ACTGACTTTC TTAGTGCTC TCACTACTTT CTGGAAGTGA
2341 CATATGTTTT TCACTCTGTA TATACTTACA ATTAATAGT CATAAATATT CAGAGCTTGG
2401 AGAAACCTTA TATTTCAATC AGTCCAGTAA ATTTATCCAT CCATAATTCA CTCATTCAAT
2461 CACATAATAA ATATTTAATG TAACAATGGT TGAACATGGC AGACAGTGTT TCTACCTCAA
2521 AAGAGATTGC AGTCCTCATT TACAGATACT GAATTGAAAT TAACAGAAGT AGAGTGAGTC

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2581 AGCTCAAATC ACATAGTGAA TTGGTTTCTT TGTTTTTAAA TCTCCTGCAT ATGTGTCCTG
2641 TCTTTCTCCC TGTGTTGGGC GTTCCCTGGG GCACCAATAC TAATTTCTCC TTCCCCTAGA
2701 AATCAAAACA GGGTCTTATC ACCAACAGAA TAAGGACAGG TTGACCACCTG ATTGTCAGAA
2761 TATTGCTTCG TTTGTACTTT TAAGCCTAGA CAGTTTTCAA TGACTTTTTT TCTCTCTACA
2821 TGTCTTTTCA TATTTTATC TTCTTGAAGT CCCTCAGAAA CCTAAGGTCT CCTTGAACCC
2881 TCCATGGAAT AGAATATTTA AAGGAGAGAA TGTGACTCTT ACATGTAATG GGAACAATTT
2941 CTTTGAAGTC AGTTCCACCA AATGGTTCCA CAATGGCAGC CTTTCAGAAG AGACAAATTC
3001 AAGTTTGAAT ATTGTGAATG CCAAAATTGA AGACAGTGGA GAATACAAAT GTCAGCACCA
3061 ACAAGTTAAT GAGAGTGAAC CTGTGTACCT GGAAGTCTTC AGTGGTAAGT TCCAGGGATA
3121 TGGAAATACA GATCTCTCAT GTGAGGGATG GCTCATCTGA AGATGGGAAA AAACAGGTTA
3181 TTCCAAGGGT TAGGACACCA GAGTGGGATT CAAGGCCTCT CATTTTTAAG ACCCTTGCTAT
3241 TGGCTGGGCA CAGTGGCTCA CGCCTGTAAT CCCAGCACTT TGGGAGGCTG AGGCAGGTGG
3301 ATCAGGAGGT CAGGAGATCG AGACCATCCG GCTAACATGG TGAAACCCCA TCTCTGCTAA
3361 AAAATATATA TATATAAAAT TAGCCGGGCG TAGTGGTGGG CACCTGTAGT CCCAGGTAAT
3421 CGGGAGGCTG AGGCAGGAGA ATGGTGTGAA CCCAGGAGGT GGAGGTTGCA GTGAGCTGAG
3481 ATCAGCCAC TGCCCTCCAG CCTGGGCTAC AGAGCAAGAC TCCGTCTCAA AAAATAAATA
3541 AATAAAATAA AAAGACCCCT GCATCTCTTT TCTTCTACCC CCTTCCCTTT TGATTACTTG
3601 TATGCCCTCT TTCAATATTC TAGTCATCTC TCAATATTAT TCCTCCACCC TATTTTCTCT
3661 TATCTTTTCT GCCTAGATTC AGGTATATAT TATGTGGTCA AACAGCATGA CATATATGTG
3721 AACATTTCAA AGAGCTGTGT ATCTGGAATA GGATCAAAG GTTTGACTTA AAGTTTTGCT
3781 CTGCATAATC CATATGGCAG GACCTGAATA TTAGGTTGTA CTCTTCGTTA TGAAACATAT
3841 CTGGGTACAT TTCCTTATGT CCTCTGTTGT TACTTAAGAA CACATATTTT ATGCTTGTGT
3901 CATTTTATC ACTCCTACTG CCAACAAATA GCATAGCATG CTTAGGCACA TGTGGCTTAA
3961 TTAGCAAATG TTGAATAAAC AAATTAATGA TTTTGAATAG TGACCAATAG GTCTCTTTTA
4021 TACTCTATAT TTTTCTCTTG AGTGAAAAAA AATGTTTCAA CCTCCATATG TAAATTCCAA
4081 ACACAACTA AAGCAATGTA GAATAGCTTC TTTATTCCTT GGAGTAGGTT CTAGAGAAGT
4141 CCTAAAGGAT TGGTCTTAAA TTAATTATGC TTATTATGCT AGCGATATTT CCTTTCAAAA
4201 TTCTCCTTTA ATGAATGCTT TTTAATTTT ACAAAAGCAT TAACCATAGA ATGTGATTCT
4261 TGCTTTTAC TGACTCATTG GTGACAAATA TTTGTTGAGT ACCTACCAAC TCCTAAGTAT
4321 TGCTACCAAC TCCTAAATAC TGTGTTGGGC ATTCAGAATA GAATGTAGAA CTAGACAGGG
4381 TCCCTGACTT CTGGAGCAC AGAGCAGTAT GGGGAAGAGGA CATTAAATAA AGAATTACAT
4441 AAGTAATTAA TTTAAATTAT ACATGTTTGT AAGAAGTTTT TTTTGTACAA CTATAATTAA
4501 CACTAGAAT GGGAGTTTCT TATAAGGTAA GAGAGGACAA AATAGACACT CTCCTAAGCT
4561 AAAATTTCCA AGAAAGACTG TTTATTTTCC CCTAACTAAC TAGAACTAGC AACAGAAGAT
4621 CTGAAAGGAA TTCTGGCTTT CAAGTGTTCC ATGTATGGAC TCATCAGGGA GGTCCGAGAG
4681 GCTTTGTGGC CCCAGACTGA CTTTTCAGGA GGGGAAAGGA TTTATCAATA CACAAGACAG
4741 GCTCTAAGCA TTATTTTGTG CCCTTTAAAA ATCCACTTTA TGAGCCAAAA AGTGAGTTAA
4801 TGATAATTCA TAGTTTCTGA CACATGCTCT ATGCGTGGCT CTCTTTTCTC TATTCAATCT
4861 CTCTCTCTTC ATTTATTGTT AAATAAATAA TGTAATGAAT GTTCTTCAGA CTGGCTGCTC
4921 CTTCAGGCCT CTGCTGAGGT GGTGATGGAG GGCCAGCCCC TCTTCCTCAG GTGCCATGGT
4981 TGGAGGAAT GGGATGTGTA CAAGGTGATC TATTATAAGG ATGGTGAAGC TCTCAGTAC
5041 TGGTATGAGA ACCACAACAT CTCCATTACA AATGCCACAG TTGAAGACAG TGAACCTAC
5101 TACTGTACGG GCAAAGTGTG GCAGCTGGAC TATGAGTCTG AGCCCCCTCA CATTACTGTA
5161 ATAAAAGGTG AGTTGGTAAA GGAAGGAAA AGCATCCATA GCAGGGGAAG GAAGAGAGAA
5221 CTTCTGAGCC TGAGCAGTTG CAGCTTGTAG AAGGGGGGCA CCTGTGATAC ACTGGAAAGC
5281 CTACCAGACT TGCAATGAGG AGACCTGGGT GATAGTATAT ATCTCAATCT CTGTTTCAAA
5341 GCCTTGACTT GTTAAATGGT GATAGTAATA CCTGCTTGCA CTATGAAATT TTTATGAAGA
5401 TTAATGTGGT AATATTTGTG AAATGACTTT GTAAACTGTT AAGCACTACC CAAGCATAAC
5461 AGATTGTGAT TACTATTTTG ATCTCAAAGT CATCTGTTGC TCCTGGGGGA ACACTTATAT
5521 TTATCAAATT GAAAAAAGT TTCAAAGTTG AATGAAGAAA GGATATAAAG AGCTTGAGGA
5581 GCCCATTCCA GCTTAGGAGG GCTGGGAAAG GAAACCAGCA AGTCAGTAAG CTGTGTGCCT
5641 GTGTATTGAG GGAGGAGGGA ATGGACTTGA TATGGAGAGG GTAGGGAGGT GGACTGCCTC
5701 TATGGCCTGT AAGAAAAACT GCTCTCTCCA AACTCTTTAT AAGAGAGGGA GCCTGTGAAG
5761 TATTCATTTT TGAAGGAGAA AGTTAGACTT TTCCTTCACA CACTTTGTAC ATAATAATGT
5821 TTAATAAAGC ATGAGGTCAA AATACATAAT TAAGTCCTAG CAGTTCTCTG TTAACATAAT
5881 TGAGACTGAA GTGCTATGTA CTTGTCTCTA GGCTTCCAGT ATCTTCATCT GTAAACAGAA
5941 ATATTTGGTC TAGATTCCAT TAGAATCATT TGATAACTTA AAAAAATATAT TGATGCTCAT
6001 GTCTCATTTT TTGAGATTCT GATTTAATTG GTTTGGGGTG CAGCCTGGGT ATACGTATTT
6061 TTCATAGGTC TTTCACATAA TGGTAATGGG TAGCCAATAT TGAGAATCAC TTGTCTAGGT
6121 GATCTTTTAA TGATTTCTGG ATGTAATATT CTGAGGCTCT ATAATTTGAG ACTAATCACA
6181 AAAATCGGTA CAGTTTATAA ACAGACTAAC AGAACCACAA AATAATAGAA TTGGAAGGCA
6241 ATTTAACTAG TGCAATTTCT TCATTTTGCC TAACAGGCAT GTAAGAAATG ATGATTGATT
6301 GAGTAATAGG CATTGATGAC CCCTGTCCTC ACTTTGTCCC CTTTCCACCC CTTAATTATA
6361 TGTGAATTCT GGTCTTGTCA TTTTGAATAA GGGGTTTATC TTTTCTATTG TTTTCCCTC
6421 TGGGCACGGC ACCTGGCTA CTGGAGTTAA GAGGAAATGC TTAGGACTCC CTGTGGCTCC
6481 AGGGAGCACC AACAGAGCAA CTCAACCTAG TGTAAATCTG AGTGTTTTCT CTGTGCTTCT
6541 GGATGCCACA TCACGCTAAA AATGAAGGAC AAAGCTTGGT CTTTCTCTTA GGGAGGATGA
6601 AACTCTGAAC CTCATTTTTC AGTTCCCAAG ATGAATTATG TTTCTCATTG CATCTGTGTT

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6661 CCACTACAGC TCCGCGTGAG AAGTACTGGC TACAATTTTT TATCCCATTG TTGGTGGTGA
6721 TTCTGTTTGC TGTGGACACA GGATTATTTA TCTCAACTCA GCAGCAGGTC ACATTTCTCT
6781 TGAAGATTAA GAGAACCAGG AAAGGCTTCA GACTTCTGAA CCCACATCCT AAGCCAAACC
6841 CCAAAAACAA CTGATATAAT TACTCAAGAA ATATTTGCAA CATTAGTTTT TTCCAGCAT
6901 CAGCAATTGC TACTCAATTG TCAAACACAG CTTGCAATAT ACATAGAAAC GTCTGTGCTC
6961 AAGGATTTAT AGAAATGCTT CATTAACTG AGTGAACTG GTTAAGTGGC ATGTAATAGT
7021 AAGTGCTCAA TTAACATTGG TTGAATAAAT GAGAGAATGA ATAGATTCAT TTATTAGCAT
7081 TTGTAAAAGA GATGTTCAAT TTCAATAAAA TAAATATAAA ACCATGTAAC AGAATGCTTC
7141 TGAGTATTCA AGGCTTGCTA GTTTGTTTGT TTGTTTTCTA CTAAAGGCAA GGACCATGAA
7201 GTTCTAGATT GGAAATGTCC TCTCTTGACT ATTGCAAGTG CGATCTAGGA ATGAAAGAGC
7261 ATAGGAGGAT GCCAGTGAGG TGGATCATTT TTATGCTTCT TCTTCAGCTT ACTAAATATG
7321 AACTTTTCAGT TCTTGGCAGA ATCAGGGACA GTCTCAAGAC ATAGGACTCT CAGGATGAAG
7381 TAGAGTCCAG GATTCCCTCG TGATTGTTTT GCCCCTCCCA AATTATATC TTGAACCTAT
7441 GTCTTGTATC TTTATACAGC ACCTGAACCA AGCATTTTGG AGAAATTCCA GCTAATAATA
7501 ATAACCAAAA CCTTCGGCTC TGAACACAGT CCAGGACTGA ATAAGATCTT GGGCAAAAGA
7561 ACTAGACAGT TTTGGTTTAT TTTCCCTTTT ATTTTATGTC TTCATCATAG TCATTGGAGG
7621 CTCATTCTTC TTGTCATGGA GTAAATGGGA TTAAAGTTC

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(2) INFORMATION FOR SEQ ID NO:2502:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1198 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2502:

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1 TACTAAGAGT CTCCAGCATC CTCCACCTGT CTACCACCGA GCATGGGCCT ATATTTGAAG
61 CCTTAGATCT CTCCAGCACA GTAAGCACCA GGAGTCCATG AAGAAGATGG CTCCTGCCAT
121 GGAATCCCCT ACTCTACTGT GTGTAGCCTT ACTGTTCTTC GCTCCAGATG GCGTGTTAGC
181 AGTCCCTCAG AACCTAAGG TCTCCTTGAA CCCTCCATGG AATAGAATAT TTAAGGAGA
241 GAATGTGACT CTTACATGTA ATGGGAACAA TTTCTTTGAA GTCAGTTCCA CCAATGGTT
301 CCACAATGGC AGCCTTTCAG AAGAGACAAA TTCAGTTTG AATATTGTGA ATGCCAAAT
361 TGAAGACAGT GGAGAATACA AATGTCAGCA CCAACAAGTT AATGAGAGTG AACCTGTGTA
421 CCTGGAAGTC TTCAGTGACT GGCTGCTCCT TCAGGCCTCT GCTGAGGTGG TGATGGAGGG
481 CCAGCCCCTC TTCCTCAGGT GCCATGGTTG GAGGAACTGG GATGTGTACA AGGTGATCTA
541 TTATAAGGAT GGTGAAGCTC TCAAGTACTG GTATGAGAAC CACAACATCT CCATTACAAA
601 TGCCACAGTT GAAGACAGTG GAACCTACTA CTGTACGGGC AAAGTGTGGC AGCTGGACTA
661 TGAGTCTGAG CCCCTCAACA TTAAGTGAAT AAAAGCTCCG CGTGAGAAGT ACTGGCTACA
721 ATTTTTTATC CCATTGTTGG TGGTGATTCT GTTTGCTGTG GACACAGGAT TATTTATCTC
781 AACTCAGCAG CAGGTCACAT TTCTCTTGAA GATTAAGAGA ACCAGGAAAG GCTTCAGACT
841 TCTGAACCCA CATCTAAGC CAAACCCCAA AAACAAGTGA TATAATTACT CAAGAAATAT
901 TTGCAACATT AGTTTTTTTC CAGCATCAGC AATTGCTACT CAATTGTCAA ACACAGCTTG
961 CAATATACAT AGAAACGTCT GTGCTCAAGG ATTTATAGAA ATGCTTCATT AAAGTGAAGT
1021 AAAGTGAAGT AGTGGCATGT AATAGTAAGT GCTCAATTAA CATTGGTTGA ATAAATGAGA
1081 GAATGAATAG ATTCATTTAT TAGCATTGTG AAAAGAGATG TTCAATTTCA ATAAATATAA
1141 TATAAAACCA TGTAACAGAA TGCTTCTGAG TAAAAAATAA AAAAAAATAA AAAAAAATAA

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(2) INFORMATION FOR SEQ ID NO:2503:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 894 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2503:

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1 TCTCAATATA ATAATATTCT TTATTCCTGG ACAGCTCGGT TAATGAAAAA ATGGACACAG
61 AAAGTAATAG GAGAGCAAAT CTGCTCTCC CACAGGAGCC TTCCAGTGTG CCTGCATTTG
121 AAGTCTTGA AATATCTCCC CAGGAAGTAT CTTCAGGCAG ACTATTGAAG TCGGCCTCAT
181 CCCCACCACT GCATACATGG CTGACAGTTT TGAAAAAAGA GCAGGAGTTC CTGGGGGTAA
241 CACAAATTCT GACTGCTATG ATATGCCTTT GTTTTGAAC AGTTGTCTGC TCTGTACTTG
301 ATATTTTACA CATTGAGGGA GACATTTTTT CATCATTTAA AGCAGGTTAT CCATTCTGGG
361 GAGCCATATT TTTTCTATT TCTGGAATGT TGTCAATTAT ATCTGAAAGG AGAAATGCAA
421 CATATCTGGT GAGAGGAAGC CTGGGAGCAA ACAGTCCAG CAGCATAGCT GGGGGAACGG
481 GAATTACCAT CCTGATCATC AACCTGAAGA AGAGCTTGGC CTATATCCAC ATCCACAGTT
541 GCCAGAAATT TTTGAGACC AAGTGCTTTA TGGCTTCCTT TTCCACTGAA ATTGTAGTGA
601 TGATGCTGTT TCTCACCATT CTGGGACTTG GTAGTGCTGT GTCACCTACA ATCTGTGGAG
661 CTGGGGAAGA ACTCAAAGGA AACRAAGTTC CAGAGGATCG TGTTTTATGA GAATTAAACA
721 TATATTCAGC TACTTACAGT GAGTTGGAAG ACCCAGGGGA AATGTCTCCT CCCATTGATT
781 TATAAGAATC ACGTGTCCAG AACACTCTGA TTCACAGCCA AGGATCCAGA AGGCCAAGGT
841 CTTGTTAAGG GGCTACTGGA AAAATTTCTA TTCTCTCCAC AGCCTGCTGG TTTT

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(2) INFORMATION FOR SEQ ID NO:2504:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11298 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2504:

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1 AAGCTTTTCA AAGGTGCAAT TGGATAACTT CTGCCATGAG AAATGGCTGA ATTGGGACAC
61 AAGTGGGGAC AATTCAGAA GAAGGGCACA TCTCTTTCTT TTCTGCAGTT CTTTCTCACC
121 TTCTCAACTC CTACTAAAAT GTCTCATTTT CAGGTTCTGT AAATCCTGCT AGTCTCAGGC
181 AAAATTATGC TCCAGGAGTC TCAAATTTTC TTATTTTATA TTAGTCTTTA TTTAGTAGAC
241 TTCTCAATTT TTCTATTCAT CACAAGTAAA AGCCTGTTGA TCTTAATCAG CCAAGAACT
301 TATCTGTCTG GCAAATGACT TATGTATAAA GAGAATCATC AATGTCATGA GGTAAACCAT
361 TTCAACTGCC TATTCAGAGC ATGCAGTAAG AGGAAATCCA CCAAGTCTCA ATATAATAAT
421 ATTCTTTATT CCTGGACAGC TCGGTTAATG AAAAAATGGA CACAGAAAGT AATAGGAGAG
481 CAAATCTTGC TCTCCACAG GAGCCTTCCA GGTAGGTACA AGGTATTATT TTTTCTTACC
541 CTCAGTCACT TGTGGCAGGG GAAGTCATAG TCACGGTGCT TAGGAGATGA AACTTTATTG
601 ATTTAGGCAT GGATCCATCT AGTTTAATTA ATATATTGGG TATGAGGAAG CTACTTGCTG
661 TACTTTCCAT GTGGTTCTCT CTCCCTGGAG AGGAACATTT TACTCAGCT TGCAAACCTG
721 AAATAGATTT TCTCACATTA GAAGCTCATT TTCTGGGTAT GAGACAGGAG AGTTCATACT
781 GTGTATGTAG ATCTCTGGCT TCTGGGCTG ACATGTGCTG AGGGACACAT ATCCTTCACA
841 CATGCTTTTA TAAATACTTG ATAAAGTAAC CTGCTTCTTG ATTGGTCTTT ATAATCCATA
901 AGCTGTGGGA TGCTTCTCTG AAGATGAAAA TAGTAATAGA GTCCCATCTA GCTATTCAAA
961 GCCATTCCTT CATTGTATTC TGTGCACATG AAGTTGGGGT TTGTTACTGA CAAAATATAT
1021 TCAGATACAT TTCTATGTTA AAAGGATTGT GAGATGCATA GGTAAATGTG TTTATTTTCA
1081 GTTTTACTTG TCAACATAGA TGAATGAGAA AGAAGTTGAA AGTAACACTG GATTAAGAAT
1141 AGGAAAATTT GGCATGGATT TTGCTCCATT TTGTCCCATC TAATCACTTG GATAGTGTTC
1201 AGGTGTTCTT GGTCAATTAC TTGGATGCTC TGAGCTTTAG TTTCTTGGTG ATTACAAATGA
1261 AGATTTGAAT TACAGGATGG CTTTGAAAAA ATAAACAAA CTCCCTTTTC TGTCTGTCGA
1321 GAATGTTGCA CAGGGAGTTA CAGAATGTTT TCATGACTGA ATTGCTTTTA AATTTACACAG
1381 TGTGCCTGCA TTTGAAGTCT TGGAAATATC TCCCAGGAA GTATCTTCAG GCAGACTATT
1441 GAAGTCGGCC TCATCCCCAC CACTGCATAC ATGGCTGACA GTTTTGAATA AAGAGCAGGA
1501 GTTCTCTGGG GTGAGTGAGC CTCCTCCAAC TTTGACTAGA GTAAGGGTTG GGTCTAGAAA
1561 AGAATATTGA GTTGCATCAA CTGTTTTCCC ACTTGGATTG ATGAGAGGTG TTAGGTCCTT
1621 TAAAAACAT GGTAGATAAA GAGTTGACAC TAACTGGGTC CTTTGGGAA GAGCCAGAAG
1681 CATTTCTCTA TAAAGACTTT AAATTGCTAG GACGAGAATG GCCAACAGGA GTGAAGGATT
1741 CATAACTTTA TCTTTACTTA GATGTAAGA ACAATTACTG ATGTTCAACA TGACTACATA
1801 CATAAAGGCG CATGGAGAAA AGTATTGGCC TTCCATGCAT TAGGTAGTGC TTGTATCAAT
1861 TCTTATAGTG GCTAGGGTAT CCTGGAAAT CTTACGTGTG GATCATTCTT CAGGACAGTC
1921 TAGGACACTA ACGCAGTTTC TCATGTTTGG CTTCTATTAT TAAAAAATGA TACAATCTCG
1981 GGAAAATTTT TTTGATTTTC ATGAAATTCA TGTGTTTTTC TATAGGTAAC ACAAAATCTG
2041 ACTGCTATGA TATGCCTTTG TTTTGAACA GTTGTCTGCT CTGTACTTGA TATTTACAC
2101 ATTGAGGGAG ACATTTTTTC ATCATTAAAA GCAGGTTATC CATTCTGGG AGCCATATTT
2161 GTGAGTATAT ATCTATAATT GTTTCTGAAA TAACACTGAA CATAGGTTTT TCTCTTTCTC
2221 AGATCTAACC AGTTGTTTAT TCCCAGTATT AAGATGATAT TTATAATTCT TAATTATAAA
2281 TATATGTGAG CATATATAAC ATAGATATGC TCATTAACAA CAACAAAGA TTCTTTTAC
2341 AATTAACGGT GGGTTAAACA TTTAGCCAC AGTTTATCC CATGAGAAAC CTGAATCTAA
2401 TACAAGTTAA ATGACTTGCC TAAGGGCCAC TTGACTAATA GTAATTGAAC CTAAACTTTC
2461 AGAATCCAAC TCCAGGAACA TACTTCTAGC ACTATTCATC AATAAAGTTA TATGATAAAT
2521 ACATACAAC TATCTGTCA ACTAAAAATA ACAACAGAGG CTGGGCATGG TGGCTCACAC
2581 CCGTAATCCC AGCACTTTGG GAGGCTGAGG CAGGTGGATC ACCTGAGGTC AGGAGTTTGA
2641 GACCAGCCTG ACCAACATGC TGAAACCTCA TCTCTACTAA ATATAAAAAA TTAGCTGAGT
2701 GTGATAGTGC ATACCTGTAA TCCAGCTACT TAAGAGGCTG AGGCAGGAGG CTTGTTTGAA
2761 CCTGGAAGGC AGAGGTTGCA GTGAGCTGAG ATTGTGCCAT TGCACTCCAG CCTGGGCAAT
2821 AAGTGCGAAC TCTGTCTCAA AATAATAATA ATAATAATAG AAAATAAAGT TGTCTTCATG
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2941 CTTCTATGCC CTAGAACTC TTTTANGGTA TTTTCTCCTG GTATCTCTTT TACNCATCGT
3001 TCTATCTGGA AAAATAGGTG GATGAGTGAG ATAATAACGG TATATACTTT TTAAGGTCT
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3121 GACACACATG AAAACATCAC CACATTAATA CAATGTATGT ATCCATCATT CCAAAGCTT
3181 CCCTGTGTAT CTTTGTAAC TTTTCTTCT CCTTCCACTC CTTGTCTCT CTGTCCCAAG
3241 AAAACATTGA TCTGCTTCT GTGAATATAA ATTAACCTAC ATTTTGTAGA GCTTTATATA
3301 AGTATGTTCT CTTTACTGTT TGTCTTCTT CGCTGCACAG TTATTTTGAG ATTCTTCAAG
3361 TTTTTTCTTT ATATCGATAC TTCATTACCA AGAATATATT TTAATTCTAG ACTATGTCAC
3421 ATTGACTTTG TCGTCTGCTA AATCCTTAGT GCTCAGATGA CTTGTTTCTG ACTCTCCTTG
3481 AACCTGTACC TCTGTTANAT TGAACTTGT CTCTACTGTC TTTTATTTC AAACACAGCT
3541 TATTAGGTGT CTCTCAACCC ATCAAACNCA CAATCTGAGT CTTTAGGAGA TTGCTTTGAA
3601 TTTGTGCTAT TGACTTATAT NTATATNAAA TNTGTAAATG TTTGGTAAAA ATATCATCAT
3661 GTACNTTTTC ATAATTACGC TATNTNCACA TGATATATGT CAGACTCTGG AAATATGCAT
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3721 GCCACAGACA CGTGTTCCTT GCCTAAAGGG GCTGATGGAA GACNCACATA CNAATAGACG
3781 ATTGCAGTAG AATGAGASTG GTGGTCTAAN CAGTACATGT CCTGATGTTG CTCGGACAGT
3841 TACTACNCCA AGAGTACCCC CTGCATTGTC AGGGTTAGCA TCTCCTGGAA GCCTCATGTA
3901 AATGAAGAAT TTCATGCTCC ATCCAGGACC TAATGAATAA GAATCTGCAT TTTAGCAAGA
3961 CCCTCATATG ATTCATATAC ACTTTTTTTT TTTTTTTTGA GATGGAGTCT CACTCTTGTC
4021 GCCCAGGCTG GAGTGCAATG GCATGATCTT GGCTCACTGC AACCTCTGCC TCCCGGGTTC
4081 AAGTGATTCT CCTGTCTCAG CCTCCCTAGT AGCTGGGACT ACAGGTGCAT GCCACAGTGG
4141 CTGGCTAATT TTTGTATTTT TAGTAGAGAC AGGGTTTCAC CATTTTGGTC AGGCTGGTCT
4201 TGAACCTCATG ACCTCCGGTG ATTCCCGCGC CTCGGCTTCC CAAAGTGCTG GGATTACAGA
4261 CATGAGCCAC CACACCCGCC TTATTCGTAT ACNCATTTAA TTCTGAGAAG CACTCTATAG
4321 AAAATAAGAA TAAGAAATAA TTGGGCTCAC AGGTGACATT AATAAGTAAC TTTATCGAGT
4381 ACCCAAATT TTACCTATGT TTGGAAGATG GGGTTAAAAG GACACATTGA AAACAAGAAC
4441 TCATTGTGGC TTTTTTTTCC TCCTTTTTGA ACAGTTTTCT ATTTCTGGAA TGTGTCAAT
4501 TATATCTGAA AGGAGAAATG CAACATATCT GGTGAGTTGC CCGTTTCTGT CTTTGTCCAT
4561 CTTGAAAAG ATAAGAAGAA CAGAGTTTTA AGAGTCTTAA GGGAAACACA TCTTTGTCTC
4621 CTATATTACT TGTGAATGTG GATATATGAT TTTGTTTCAA TCTATTTTGT GTCTAAGGC
4681 TTTTGTCAAC AGAAGTTGGA TATATCATTAA GAAACATAAA TTGTACCATT TAACATACAT
4741 GAAGTTTATG TTTACCTTGA CGTTCTTCTA AAAAGTGTCC TACACCGGCA TTGTCTTGT
4801 AGGCATATTC ACATGATCAA ATAAAATAAT TAGTTTTCAA TTAAGGAGAA TATTTGAGGA
4861 AAGACCGTAC GTGTTCATGT GGTTCCTGAA GGCAGTCCAG TGAGAAAGTA ATATATGCTT
4921 CATTAAACAA TGCGGACATT TTCAGGGTTT CCCTTTTTAA CCAAATTTG GAAGCAATGT
4981 GGAATTTACT GGATGCATCC AGCCCTGAAA TGAAGATAGG TTTATTGAAT GTGCCAGCAA
5041 GTGCAGGCC AGGTCTGAGT GTTCTTCATT ATTATCAGGT GAGAGGAAGC CTGGGAGCAA
5101 ACACTGCCAG CAGCATAGCT GGGGGAACGG GAATTACCAT CCTGATCATC AACCTGAAGA
5161 AGAGCTTGGC CTATATCCAC ATCCACAGTT GCCAGAAATT TTTTGAGACC AAGTGCTTTA
5221 TGCTTTCCTT TTCCACTGTA TGTATTTTTT TTTGTGTGGG AAGACTAAGA TTCTGGGTCC
5281 TAATGTAAGT AAGAAGCCCT CTCTCCTGT TCCATGAACA CCATCCTTTT CTGTAACCTC
5341 TATTACACAG TATAGTGGTT CTGTAAGTTC ACACAGCCCA GGGAGATGCT GGCTGCCAC
5401 TCCTCTCAAC CCAGGCAAT TCCTCGGGT TAAAGTTATC TACTGCAAGT GACCATCTCT
5461 GGGTTTTTCT GTGCCGTGTG TTGTGTGTGT GTGTGTGTGT GTGTGTGTGT GTGTGTGTGT
5521 CTTTAAAAGG ACTGGTCAGA TGGTAGGGAG ATGAAAACAG GAGATGCTAT AAGAAAATAA
5581 ACTTTTGGGG CGAATACCAA TGTGACTCTT TTTGTTTGTG ATTTGTTGCT GTTCAATAGG
5641 AAATTGTAGT GATGATGCTG TTTCTCACCA TTCTGGGACT TGGTAGTGTG GTGTCACTCA
5701 CAATCTGTGG AGCTGGGGAA GAACTCAAAG GAAACAAGGT AGATAGAAGC CCGATATAAA
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(2) INFORMATION FOR SEQ ID NO:2505:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: - base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2505:

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901 TTGCAACATT AGTTTTTTC CAGCATCAGC AATTGCTACT CAATTGTCAA ACACAGCTTG
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1 TCTCAATATA ATAATATTCT TTATTCCTGG ACAGCTCGGT TAATGAAAAA ATGGACACAG
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241 CACAAATTCT GACTGCTATG ATATGCCTTT GTTTTGAAC AGTTGTCTGC TCTGTACTTG
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1 AAGCTTTTCA AAGGTGCAAT TGGATAACT CTGCCATGAG AAATGGCTGA ATTGGGACAC
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601 ATTTAGGCAT GGATCCATCT AGTTTAATTA ATATATTGGG TATGAGGAAG CTACTTGCTG
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10081 TCCTTATGTA TTCTCAATTA CCTGTATTG TGCAATAAAT TGAATAATG TAACTTGATT
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11281 CTGGAGAATC ACGTGAAC

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(2) INFORMATION FOR SEQ ID NO:2506:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1291 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2506:

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121 TGTAGAGTTC GAGACCAGCA TGGACAACAT GGTGAAACCC AGTCTCTACC AAAAACACAA
181 AAATATTAGC TGGGTGTGGT GGTGCATGCC TGTAGTCCCA GCTACTCAGG AGGCTGAGGT
241 GGGAGGATCG CTTGAGCCTG GGAGGCAGAA GTTGCAATGA GCAGAGATCG TGCCACTCCG
301 CTCCAGTCTT GGTGACAGAA TGAGACTCCA TCTCAAAAAT AAATAAATAA ATAAATAAAA
361 TAAATGAAAT GAAATTATAA GAAATTACCA CTTTTTCATG TAAGAAGTGA TCATTTCCAT
421 TATAAGGGAA GGAATTTAAT CCTACCTGCC ATTCCACCAA AGCTTACCTA GTGCTAAAGG
481 ATGAGGTGTT AGTAAGACCA ACATCTCAGA GGCCTCTCTG TGCCAATAGC CTTCTTCTCT
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661 CCCCAGCTT CCTGGACTCC TGTCACAAGC TGGAAAAGTG AGAGGATGGA CAGGGATTAA
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1261 GGCAGTGCAG CCAGCTGCAA GGTGAGTTGC C

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(2) INFORMATION FOR SEQ ID NO:2507:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2507:

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121 AGCCAGCTGC AAGCCCCACA GTGAAGAACA TCTGAGCTCA AATCCAGATA AGTGACATAA
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241 AATTCCACCA GTATGCAATG AATGGGGAAG AAGACATCAA CAACAATGTG GAGAAAGCCC
301 CCTGTGCCAC CTCCAGTCCA GTGACACAGG ATGACCTTCA GTATCACAAC CTCAGCAAGC
361 AGCAGAATGA GTCCCCGCAG CCCCTCGTGG AGACGGGAAA GAAGTCTCCA GAATCTCTGG
421 TCAAGCTGGA TGCAACCCCA TTGTCTCTCC CACGGCATGT GAGGATCAAA AACTGGGGCA
481 CGGGGATGAC TTCCAAGAC AACTTCAACC ATAAGGCCAA AGGGATTTTA ACTTGAGGT
541 CAAAATCTTG CCTGGGGTCC ATTATGACTC CAAAAGTTT GACCAGAGGA CCCAGGGACA

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601 AGCCTACCCC TCCAGATGAG CTTCTACCTC AAGCTATCGA ATTTGTCAAC CAATATTACG
661 GCTCCTTCAA AGAGGCAAAA ATAGAGGAAC ATCTGGCCAG GGTGGAAGCG GTAACAAAGG
721 AGATAGAAAC AACAGGAACC TACCAACTGA CGGGAGATGA GCTCATCTTC GCCACCAAGC
781 AGGCCTGGCG CAATGCCCCA CGCTGCATTG GGAGGATCCA GTGGTCCAAC CTGCAGGTCT
841 TCGATGCCCG CAGCTGTTCC ACTGCCCGGG AAATGTTTGA ACACATCTGC AGACACGTGC
901 GTTACTCCAC CAACAATGGC AACATCAGGT CGGCCATCAC CGTGTTCCCC CAGCGGAGTG
961 ATGGCAAGCA CGACTTCCGG GTGTGGAATG CTCAGCTCAT CCGCTATGCT GGCTACCAGA
1021 TGCCAGATGG CAGCATCAGA GGGGACCCTG CCAACGTGGA ATTCACCTAG CTGTGCATCG
1081 ACCTGGGCTG GAAGCCCAAG TACGGCCGCT TCGATGTGGT CCCCCTGGTG CTGCAGGCCA
1141 ATGGCCGTGA CCCTGAGCTC TTCGAAATCC CACCTGACCT TGTGCTTGAG TTGGCCATGG
1201 AACATCCCAA ATACGAGTGG TTTGGGGAAC TGGAGCTAAA GTGGTACGCC CTGCCTGCAG
1261 TGGCCAACAT GCTGCTTGAG GTGGGCGGCC TGGAGTTCCC AGGGTGCCCC TTCAATGGCT
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1381 TGGAGGAAGT GGGCAGGAGA ATGGGCCCTG AAACGCACAA GCTGGCCTCG CTCTGGAAAG
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1561 GGTCCCGTGG GGGCTGCCCC GCAGACTGGA TTTGGCTGGT CCGTCCCATG TCTGGGAGCA
1621 TCACCCCGGT GTTTCACCAG GAGATGCTGA ACTACGTCCT GTCCCCTTTC TACTACTATC
1681 AGGTAGAGGC CTGGAACACC CATGTCTGGC AGGACGAGAA GCGGAGACCC AAGAGAAGAG
1741 AGATTCCATT GAAAGTCTTG GTCAAAGCTG TGCTCTTTGC CTGTATGCTG ATGCGCAAGA
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1981 CGTTTGGCAA TGGAGACTGC CCTGGCAATG GAGAGAAACT GAAGAAATCG CTCTTCATGC
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2101 CTCGGTTCTG CGCCTTTGCT CATGACATTG ATCAGAAGCT GTCCCACCTG GGGGCTCTC
2161 AGCTACCCCC GATGGGAGAA GGGGATGAGC TCAGTGGGCA GGAGGACGCC TTCCGAGCT
2221 GGGCCGTGCA AACCTTCAAG GCAGCTGTG AGACGTTTGA TGTCCGAGGC AAACAGCACA
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2341 TGCAGACTC ACAGCCTTTG GACCTCAGCA AAGCCCTCAG CAGCATGCAT GCCAAGTAGC
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2521 ACCTTGGGGT TTGCCCAGGC AACCAGCCGG CCTTGGTCCA AGGCATCCTG GAGCGAGTGG
2581 TGGATGGCCC CACACCCAC CAGACAGTGC GCCTGGAGGA CCTGGATGAG AGTGGCAGCT
2641 ACTGGGTCAG TGACAAGAGG CTGCCCCCTT GCTCACTCAG CCAGGCCCTC ACCTACTCCC
2701 CGGACATCAC CACACCCCA ACCAGCTGC TGCTCCAAA GCTGGCCACG GTGGCCACAG
2761 AAGAGCCTGA GAGACAGAGG CTGGAGGCC CTGCGCAGCC CTCAGAGTAC AGCAAGTGA
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2881 CTGTGGCTT CTGTCTTCC CAGCTCCCCA TTCTGAAGCC CAGGTTCTAC TCCATCAGCT
2941 CCTCCCGGGA TCACACGCCC ACGGAGATCC ACCTGACTGT GGCCGTGGTC ACCTACCACA
3001 CCGGAGATGG CCAGGTGCCC CTGCAACCAG GTGTCTGCAG CACATGGCTC AACAGCCTGA
3061 AGCCCCAAGA CCCAGTGCCC TGCTTTGTGC GGAATGCCAG CGCCTTCCAC CTCCCCGAGG
3121 ATCCCTCCCA TCCTTGATC CTCATCGGGC CTGGCACAGG CATCGTGCCC TTCCGAGTT
3181 TCTGGCAGCA ACGGCTCCAT GACTCCAGC ACAAGGGAGT GCGGGGAGGC CGCATGACCT
3241 TGGTGTGTTG GTGCCGCCGC CCAGATGAGG ACCACATCTA CCAGGAGGAG ATGCTGGAGA
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3361 CCAAGGTCTA TGTTCAAGAC ATCTGCGGC AGCAGCTGGC CAGCGAGGTG CTCCGTGTGC
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3481 CCCACACCT GAAGCAGCTG GTGGCTGCCA AGCTGAAATT GAATGAGGAG CAGGTCGAGG
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3601 TTCTTACGA GCGAAGAAG GACAGGGTGG CGGTGCAGCC CAGCAGCCTG GAGATGTGAG
3661 CGCTCTGAGG GCCTACAGGA GGGTTAAAG CTGCCGGCAC AGAACTTAAG GATGGAGCCA
3721 GCTCTGCATT ATCTGAGGTC ACAGGCCTG GGGAGATGGA GGAAAGTGAT ATCCCCAGC
3781 CTCAAGTCTT ATTTCTCAA CGTTGCTCCC CATCAAGCCC TTTACTTGAC CTCTTAACAA
3841 GTAGACCCT GGATTGATCG GAGCCTCCTC TCTCAAATG GGGCCTCCCT GGTCCCTTGG
3901 AGACAAAATC TTAAATGCCA GGCCTGGCGA GTGGGTGAAA GATGGAACCT GCTGCTGAGT
3961 GCACCACTTC AAGTGACCAC CAGGAGGTGC TATCGACCA CTGTGTATTT AACTGCCTTG
4021 TGTACAGTTA TTTATGCCCT TGTATTTAAA AAATAACAC CCAGTCTGTT CCCCATGGCC
4081 ACTTGGGTCT TCCCTGTATG ATTCCTTGAT GGAGATATTT ACATGAATTG CATTTTACTT
4141 TAATC

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(2) INFORMATION FOR SEQ ID NO:2508:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4077 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2508:

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121 GTGCGGCAAG CAGGGGCCAG CCACCCCGGC CCCTGAGCCC AGCCGGGCCC CAGCATCCCT
181 ACTCCACCA GCGCCAGAAC ACAGCCCCCG GAGCTCCCCG CTAACCCAGC CCCCAGAGGG
241 GCCCAAGTTC CCTCGTGTGA AGAACTGGGA GGTGGGGAGC ATCACCCTATG ACACCCTCAG
301 CGCCCAGGCG CAGCAGGATG GGCCCTGCAC CCCAAGACGC TGCCTGGGCT CCCTGGTATT
361 TCCACGGAAA CTACAGGGCC GGCCCTCCCC CGGCCCCCCG GCCCTGAGC AGCTGCTGAG
421 TCAGGCCCGG GACTTCATCA ACCAGTACTA CAGCTCCATT AAGAGGAGCG GCTCCCAGGC
481 CCACGAACAG CGGCTTCAAG AGGTGGAAGC CGAGGTGGCA GCCACAGGCA CCTACCAGCT
541 TAGGGGAGAGC GAGCTGGTGT TCGGGGCTAA GCAGGCCTGG CGCAACGCTC CCCGCTGCGT
601 GGGCCGGATC CAGTGGGGGA AGCTGCAGGT GTTCGATGCC CGGGAGCTGA GGTCTGCACA
661 GGAAATGTTC ACCTACATCT GCAACCACAT CAAGTATGCC ACCAACCGGG GCAACCTTCG
721 CTCGGCCATC ACAGTGTTC CGCAGCGCTG CCCTGGCCGA GGAGACTTCC GAATCTGGAA
781 CAGCCAGCTG GTGCGCTACG CGGGCTACCG GCAGCAGGAC GGCTCTGTGC GGGGGGACCC
841 AGCCAACGTG GAGATCACCG AGCTCTGCAT TCAGCACGGC TGGACCCAG GAAACGGTCG
901 CTTTCGACGTG CTGCCCCTGC TGCTGCAGGC CCCAGATGAG CCCCCAGAAC TCTTCTTCT
961 GCCCCCGAG CTGGTCTTGG AGGTGCCCTT GGAGCACCCC ACGCTGGAGT GGTTCGAGC
1021 CCTGGGCTG CGCTGGTACG CCCTCCCGGC AGTGTCCAAC ATGCTGCTGG AAATTGGGGG
1081 CCTGGAGTTC CCCGCAGCCC CCTTCAGTGG CTGGTACATG AGCACTGAGA TCGGCACGAG
1141 GAACCTGTGT GACCCTCACC GCTACAACAT CCTGGAGGAT GTGGCTGTCT GCATGGACCT
1201 GGATAACCGG ACCACCTCGT CCCTGTGGAA AGACAAGGCA GCAGTGGAAA TCAACGTGGC
1261 CGTGCTGCAC AGTTACCAGC TAGCCAAAGT CACCATCGTG GACCACCAG CCGCCACGGC
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1381 GGCTTGGATC GTGCCCCCA TCTCGGGCAG CCTCACTCCT GTTTTCCATC AGGAGATGGT
1441 CAACTATTTC CTGTCCCCGG CCTTCCGCTA CCAGCCAGAC CCCTGGAAGG GGAGTGCCGC
1501 CAAGGGCACC GGCATCACCA GGAAGAAGAC CTTTAAAGAA GTGGCCACG CCGTGAAGAT
1561 CTCGCGCTCG CTCATGGGCA CGGTGATGGC GAAGCGAGTG AAGCGACAA TCCTGTATGG
1621 CTCGAGACC GGCCGGGCCC AGAGCTACGC ACAGCAGCTG GGGAGACTCT TCCGGAAGGC
1681 TTTTGATCCC CGGGTCTGT GTATGGATGA GTATGACGTG GTGTCCCTCG AACACGAGAC
1741 GCTGGTGTCTG GTGGTAACCA GCACATTGG GAATGGGGAT CCCCCGAGA ATGGAGAGAG
1801 CTTTGCAGCT GCCCTGATGG AGATGTCCGG CCCCTACAAC AGCTCCCCCTC GGCCGGAACA
1861 GCACAAGAGT TATAAGATCC GCTTCAACAG CATCTCCTGC TCAGACCCAC TGGTGTCTCTC
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1981 CAGGTTCTGT GTGTTCCGGC TCGGCTCCCG GGCATACCCC CACTTCTCGC CTTTGTCTCG
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2101 CGACGAGCTG TGCGGCCAGG AGGAGGCCTT CCGAGGCTGG GCCCAGGCTG CTTTCCAGGC
2161 CGCTGTGAG ACCTTCTGTG TGGGAGAGGA TGCCAAGGCC GCCGCCGAG ACATCTTCAG
2221 CCCCCAACGG AGCTGGAAGC GCCAGAGGTA CCGGCTGAGC GCCCAGGCCG AGGGCTGCA
2281 GTTGCTGCCA GGTCTGATCC ACGTGCACAG GCGGAAGATG TTCCAGGCTA CAATCCGCTC
2341 AGTGGAAGAC CTGCAAAGCA GCAAGTCCAC GAGGGCCACC ATCCTGCTGC GCCTGGACAC
2401 CGGAGGCCAG GAGGGGCTGC AGTACCAGCC GGGGGACCAC ATAGGTGTCT GCCCGCCCA
2461 CCGGCCCGGC CTTGTGGAGG CGCTGCTGAG CCGCGTGGAG GACCCGCGG CGCCACTGA
2521 GCGGGACCCC CGGCTGCCCC CGTGCACGCT GCGCCAGGCT CTCACCTTCT TCCTGGACAT
2581 GCGGGACCCC CGGCTGCCCC CGTGCACGCT GCGCCAGGCT CTCACCTTCT TCCTGGACAT
2641 CACCTCCCCA CCCAGCCCTC AGCTCTTGGC GCTGCTCAGC ACCTTGGCAG AAGAGCCCAG
2701 GGAACAGCAG GAGCTGGAGG CCCTCAGCCA GGATCCCCGA CGCTACGAGG AGTGGAAGTG
2761 GTTCCGCTGC CCCACGCTGC TGGAGGTGCT GGAGCAGTTC CCGTCGGTGG CGCTGCCTGC
2821 CCCACTGCTC CTCACCCAGC TGCCCTGCTG CAGCCCCCGG TACTACTCAG TCAGCTCGGC
2881 ACCACGACC CACCCAGGAG AGATCCACCT CACTGTAGCT GTGCTGGCAT ACAGGACTCA
2941 GGATGGGCTG GGCCCCCTGC ACTATGGAGT CTGCTCCAGC TGGCTAAGCC AGCTCAAGCC
3001 CGGAGACCCT GTGCCCTGCT TCATCCGGGG GGCTCCCTCC TTCCGGCTGC CACCCGATCC
3061 CAGCTTGCCC TGCATCCTGG TGGGTCCAGG CACTGGCATT GCCCCCTTCC GGGGATTCTG
3121 GCAGGAGCGG CTGCATGACA TTGAGAGCAA AGGGCTGCAG CCCACTCCCA TGACTTTGGT
3181 GTTCCGCTGC CGATGCTCCC AACTTGACCA TCTCTACCGC GACGAGGTGC AGAACGCCCA
3241 GCAGCGCGGG GTGTTTGCCG GAGTCTCTAC CGCCTTCTCC CGGGAACCTG ACAACCCCA
3301 GACCTACGTG CAGGACATCC TGAGGACGGA GCTGGCTGCG GAGGTGCACC GCGTGTGTG
3361 CCTCGAGCGG GGCCACATGT TTGTCTGCGG CGATGTTACC ATGGCAACCA ACGTCTGCA
3421 GACCGTGACG CGCATCCTGG CGACGGAGGG CGACATGGAG CTGGACGAGG CCGGCGACGT
3481 CATCGGCGTG CTGCGGGATC AGCAACGCTA CCACGAAGAC ATTTTCGGGC TCACGCTGCG
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3601 GCGGGCGCA GTGCCCTGGG CGTTCCAGCC TCCCGGCTCA GACACCAACA GCCCCTGAGA
3661 GCCGCTGGC TTTCCCTTCC AGTTCCGGGA GAGCGGCTGC CCGACTCAGG TCCGCCCCGAC
3721 CAGGATCAGC CCCGCTCCTC CCCTCTTGAG GTGGTGCTTT CTCACATCTG TCCAGAGGCT
3781 GCAAGGATTC AGCATTATTC CTCAGGAAG GAGCAAAACG CCTCTTTTCC CTCTTAGGC
3841 CTGTTGCCCTC GGGCCTGGGT CCGCCTTAAT CTGGAAGGCC CCTCCCAGCA GCGGTACCCC
3901 AGGGCCTACT GCCACCCGCT TCCTGTTTCT TAGTCCGAAT GTTAGATTCC TCTTGCTCT
3961 CTCAGGAGTA TCTTACCTGT AAAGTCTAAT CTCTAAATCA AGTATTTATT ATTGAAGATT
4021 TACCATAAGG GACTGTGCCA GATGTTAGGA GAACTACTAA AGTGCTTACC CCAGCTC

(2) INFORMATION FOR SEQ ID NO:2509:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2- base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2509:

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 121 TTCAGAGTTC GAGACCAGCA TGGACAACAT GGTGAAACCC AGTCTCTACC AAAAACACAA
 181 AAATATTAGC TGGGTGTGGT GGTGCATGCC TGTAGTCCCA GCTACTCAGG AGGCTGAGGT
 241 GGGAGGATCG CTTGAGCCTG GGAGGCAGAA GTTGCAATGA GCAGAGATCG TGCCACTCCG
 301 CTCCAGTCTT GGTGACAGAA TGAGACTCCA TCTCAAAAT AAATAAATAA ATAAATAAAA
 361 TAAATGAAAT GAAATTATAA GAAATTACCA CTTTTTCATG TAAGAAGTGA TCATTTCAT
 421 TATAAGGAA GGAATTTAAT CCTACCTGCC ATTCCACCA AGCTTACCTA GTGCTAAAGG
 481 ATGAGGTGTT AGTAAGACCA ACATCTCAGA GGCCTCTCTG TGCCAATAGC CTTCTTCCT
 541 TTCCCTTCCA AAAACCTCAA GTGACTAGTT CAGAGGCCTG TCTGGAATAA TGGCATCATC
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 781 TGGCCAAATA AAACCTGGCT CCGTGGTGCC TCTGTCTTAG CAGCCACCCT GCTGTGAAC
 841 TGCCACCTTG GACTTGGGAC CAGAAAGAGG TGGGTGGGT GAAGAGGCAC CACACAGAGT
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1141 CCTCATTCCT GCTTTAAAT CTCTCGGCCA CCTTTGATGA GGGGACTGGG CAGTTCTAGA
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1261 GGCAGTGAG CCAGCTGCAA GGTGAGTTGC C
1 CTGCTTTAAA ATCTCTCGG CACCTTTGAT GAGGGGACTG GGCAGTTCTA GACAGTCCC
  61 AAGTTCTCAA GGCACAGGTC TCTTCTCGT TTAGCTGTCC TTACCCCGGG GAGGCACTGC
 121 AGCCAGCTGC AAGCCCCACA GTGAAGAACA TCTGAGCTCA AATCCAGATA AGTGACATAA
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 241 AATTCACCA GTATGCAATG AATGGGAAA AAGACATCAA CAACAATGTG GAGAAAGCCC
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 361 AGCAGAATGA GTCCCCGAG CCCCTCGTGG AGACGGGAAA GAAGTCTCCA GAATCTCTGG
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2221 GGGCCGTGCA AACCTTCAAG GCAGCCTGTG AGACGTTTGA TGTCCGAGG AAACAGCACA
2281 TTCAGATCCC CAAGCTCTAC ACCTCCAATG TGACCTGGGA CCCGACCAC TACAGGCTCG
2341 TGCAGGACTC ACAGCCTTTG GACCTCAGCA AAGCCCTCAG CAGCATGCAT GCCAAGAAGC
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2401 TGTTCACCAT GAGGCTCACA TCTCGGCAGA ATCTACAAAG TCCGACATCC AGCCGTGCCA
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 2881 CTGCTGGCTT CCGTCTTCC CAGCTCCCCA TTCTGAAGCC CAGGTTCTAC TCCATCAGCT
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 121 GTGCGGCAAG CAGGGCCAG CCACCCCGGC CCCTGAGCCC AGCCGGGCCC CAGCATCCCT
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 241 GCCCCAAGTC CCTCGTGTGA AGAACTGGGA GGTGGGGAGC ATCACCTATG ACACCCCTCAG
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(2) INFORMATION FOR SEQ ID NO:2510:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11970 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2510:

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301 GCCCAGACTG GACTAAACT CTGGGCTCA AGTGATTGTC CTGCCTCAGC CTCCTGAATA
361 GCTGGGACTA CAGGGGCATG CCATCACACC TAGTTCATTT CCTCTATTTA AAATATACAT
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481 CCTGAAC TAGTGGCCACA GGAATTATAA AAGCTGAGAA ATTCTTTAAT AATAGTAACC
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11461 TGAACCAAC TTTGACAACC ATGAGACCAC TGTATCAAA ACTTTCTTT CTGGAATGTA
11521 ATCAATGTTT CTTCTAGGTT CTAATAATG TGATCAGACC ATAATGTTAC ATTATATCA
11581 ACAATAGTGA TTGATAGAGT GTTATCAGTC ATAATAAT AAAGCTTGCA ACAAATCTCT
11641 CTGACACATA GTTATTCATT GCCTTAATCA TTATTTTACT GCATGGTAAT TAGGGACAAA
11701 TGGTAAATGT TTACATAAAT AATTGTATTT AGTGTTACTT TATAAATCA AACCAAGATT
11761 TTATATTTT TTCTCTCTT TGTTAGCTGC CAGTATGCAT AAATGGCATT AAGAATGATA
11821 ATATTTCCGG GTTCACTTAA AGCTCATATT ACACATACAC AAAACATGTG TTCCCATCTT
11881 TATACAACT CACACATACA GAGCTACATT AAAACAACCT AATAGGCCAG GCACGGTGGC
11941 TCAGACCTGT AATCCAGCA CTTTGGGAGG

(2) INFORMATION FOR SEQ ID NO:2511:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1497 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2511:

1 ACCAACCCTCT TCGAGGCACA AGGCACAACA GGCTGCTCTG GGATTCTCTT CAGCCAATCT
61 TCATTGCTCA AGTGTCTGAA GCAGCCATGG CAGAAGTACC TGAGCTCGCC AGTGAAATGA
121 TGGCTTATTA CAGTGGCAAT GAGGATGACT TGTCTTTGA AGCTGATGGC CCTAAACAGA
181 TGAAGTGCTC CTTCCAGGAC CTGGACCTCT GCCCTCTGGA TGGCGGCATC CAGCTACGAA
241 TCTCCGACCA CCACTACAGC AAGGGCTTCA GGCAGGCCGC GTCAGTTGTT GTGGCCATGG
301 ACAAGCTGAG GAAGATGCTG GTTCCCTGCC CACAGACCTT CCAGGAGAAT GACCTGAGCA
361 CCTTCTTTCC CTTTCATCTT GAAGAAGAAC CTATCTTCTT CGACACATGG GATAACGAGG
421 CTTATGTGCA CGATGCACCT GTACGATCAC TGAAGTGCAC GCTCCGGGAC TCACAGCAAA
481 AAAGCTTGGT GATGTCTGGT CCATATGAAC TGAAAGCTCT CCACCTCCAG GGACAGGATA
541 TGGAGCAACA AGTGGTGTTC TCCATGTCCT TTGTACAAGG AGAAGAAAGT AATGACAAAA
601 TACCTGTGGC CTTGGGCCTC AAGGAAAAGA ATCTGTACCT GTCCTGCGTG TTGAAAGATG
661 ATAAGCCAC TCTACAGCTG GAGAGTGTAG ATCCCAAAA TTACCCAAAG AAGAAGATGG
721 AAAAGCGATT TGTCTTCAAC AAGATAGAAA TCAATAACAA GCTGGAATTT GAGTCTGCCC
781 AGTTCCCCAA CTGGTACATC AGCACCTCTC AAGCAGAAAA CATGCCGCTC TTCTGGGAG
841 GGACCAAAGG CGGCCAGGAT ATAAGTACT TCACCATGCA ATTTGTGTCT TCCTAAAGAG
901 AGCTGTACCC AGAGAGTCCT GTGCTGAATG TGGACTCAAT CCCTAGGGCT GGCAGAAAGG
961 GAACAGAAAG GTTTTTGAGT ACGGCTATAG CCTGGACTTT CCTGTGTCT ACACCAATGC
1021 CCAACTGCCT GCCTTAGGGT AGTGCTAAGA GGATCTCCTG TCCATCAGCC AGGACAGTCA
1081 GCTCTCTCCT TTCAGGGCCA ATCCCAGCC CTTTGTGTA GCCAGGCCTC TCTCACCTCT
1141 CCTACTCACT TAAAGCCCGC CTGACAGAAA CCACGGCCAC ATTTGGTTCT AAGAAACCTT
1201 CTGTCAATCG CTCCCACATT CTGATGAGCA ACCGCTTCCC TATTTATTTA TTTATTTGTT
1261 TGTTTGTGTTT ATTCATTGGT CTAATTTATT CAAAGGGGGC AAGAAGTAGC AGTGTCTGTA
1321 AAAGAGCCTA GTTTTTAATA GCTATGGAAT CAATTCAATT TGGACTGGTG TGCTCTCTTT
1381 AAATCAAGTC CTTTAATTA GACTGAAAAT ATATAAGCTC AGATTATTTA AATGGGAATA
1441 TTTATAAATG AGCAAATATC ATACTGTTCA ATGGTTCTGA AATAAATCTC TCTGAAG

(2) INFORMATION FOR SEQ ID NO:2512:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 9721 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2512:

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1 AGAAAGAAAG AGAGAGAGAA AGAAAAGAAA GAGGAAGGAA GGAAGGAAAG AAGAAAGACA
61 GGCTCTGAGG AAGGTGGCAG TTCTACAAC GGGAGAACCA GTGGTTAATT TGCAAAGTGG
121 ATCCTGTGGA GGCANNACAG GGAGTCCCCT AGGCCACCCA GACAGGGGCTT TTAGCTATCT
181 GCAGGCCAGA CACCAAATTT CAGGAGGGCT CAGTGTTAGG AATGGATTAT GGCTTATCAA
241 ATTCACAGGA AACTAACATG TTGAACAGCT TTTAGATTTC CTGTGAAAAA TATAACTTAC
301 TAAAGATGGA GTTCTTGTGA CTGACTCCTG ATATCAAGAT ACTGGGAGCC AAATTAAGAAA
361 TCAGAAGGCT GCTTGGAGAG CAAGTCCATG AAATGCTCTT TTTCCACAG TAGAACCTAT
421 TTCCCTCGTG TCTCAAATAC TTGCACAGAG GCTCACTCCC TTGGATAATG CAGAGCGAGC
481 ACGATACCTG GCACATACTA ATTTGAATAA AATGCTGTCA AATTTCCATT CACCCATTCA
541 AGCAGCAAAC TCTATCTCAC CTGAATGTAC ATGCCAGGCA CTGTGCTAGA CTTGGCTCAA
601 AAAGATTTC A GTTCTCTGGA GGAACAGGA GGGCAAGGTT TCAACTCAGT GCTATAAGAA
661 GTGTTACAGG CTGGACACGG TGGCTACCGC CTGTAATCCC AACATTTGGG AGGCCGAGGC
721 GGGCAGATCA CAAGGTCAGG AGATCGAGAC CATCCTGGCT AACATGGTGA AACCCTGTCT
781 CTACTAAAAA TACAAAAAAT TAGCCGGGCG TTGGCGGCAG GTGCCTGTAG TCCCAGCTGC
841 TGGGGAGGCT GAGGCAGGAG AATGGTGTGA ACCCGGGAGG CGGAACCTGC AGGGGGCCGA
901 GATCGTGCCA CTGCACTCCA GCCTGGGCGA CAGAGTGAGA CTCTGTCTCA AAAAAAAAAA
961 AAAAGTGTTA TGATGCAGAC CTGTCAAAGA GGCAAAGGAG GGTGTTCTCA CACTCCAGGC
1021 ACTGTTTCATA ACCTGGACTC TCATTCATT TACAAATGGA GGGCTCCCCT GGCAGATCC
1081 CTGGAGCAGG CACTTTGCTG GTGTCTCGGT TAAAGAGAAA CTGATAACTC TTGGTATTAC
1141 CAAGAGATAG AGTCTCAGAT GGATATTCTT ACAGAAACAA TATTCCACT TTTAGAGTT
1201 CACCAAAAAA TCATTTTAGG CAGAGCTCAT CTGGCATTGA TCTGGTTCAT CCATGAGATT
1261 GGCTAGGGTA ACAGCACCTG GTCTTGCAGG GTTGTGTGAG CTATCTCCA GGGTTGCCCC
1321 AACTCCGTC A GGAGCCTGAA CCCTGCATAC CGTATGTTCT CTGCCCCAGC CAAGAAAGGT
1381 CAATTTTCTC CTCAGAGGCT CCTGCAATTG ACAGAGAGCT CCCGAGGCAG AGAACAGCAC
1441 CCAAGGTAGA GACCCACACC CTAATACAG ACAGGGAGGG CTATTGGCCC TTCATTGTAC
1501 CCATTTATCC ATCTGTAAGT GGAAGATTCT CTAACCTTAA GTACAAAGAA GTGAATGAAG
1561 AAAAGTATGT GCATGTATAA ATCTGTGTGT CTTCCACTTT GTCCACATA TACTAAATTT
1621 AAACATTCTT CTAACGTGGG AAAATCCAGT ATTTTAATGT GGACATCAAC TGCACAACGA
1681 TTGTCAGGAA AACAATGCAT ATTTGCATGG TGATACATT GCAAAATGTG TCATAGTTTG
1741 CTACTCCTTG CCCTTCCATG AACCAGAGAA TTATCTCAGT TTATTAGTCC CCTCCCCTAA
1801 GAAGCTTCCA CCAATACTCT TTTCCCCTTT CTTTAACTT GATTGTGAAA TCAGGTATTCT
1861 AACAGAGAAA TTTCTCAGCC TCTACTTCT GCTTTTGAAA GCTATAAAAA CAGCGAGGGA
1921 GAAACTGGCA GATACCAAAC CTCTTCGAGG CACAAGGCAC AACAGGCTGC TCTGGGATTC
1981 TCTTCAGCCA ATCTTCATTG CTCAAGTATG ACTTTAATCT TCCTTACAAC TAGGTGCTAA
2041 GGGAGTCTCT CTGTCTCTCT GCCTCTTTGT GTGTATGCAT ATTCTCTCTC TCTCTCTCTT
2101 TCTTTCTCTG TCTCTCTCTC CTCTCTCTC TGCCTCTCTC CTCAGCTTTT TGCAAAATG
2161 CCAGGTGTAA TATAATGCTT ATGACTCGGG AAATATTCTG GGAATGGATA CTGCTTATCT
2221 AACAGCTGAC ACCCTAAAGG TTAGTGTCAA AGCCTCTGCT CCAGCTCTCC TAGCCAATAC
2281 ATTGCTAGTT GGGGTTGGT TTAGCAATG CTTTTCTCTA GACCCAAAGG ACTTCTCTTT
2341 CACACATTCA TTCATTTACT CAGAGATCAT TTCTTTGCAT GACTGCCATG CACTGGATGC
2401 TGAGAGAAAT CACACATGAA CGTAGCCGTC ATGGGGAAGT CACTCATTTT CTCCTTTTAA
2461 CACAGGTGTC TGAAGCAGCC ATGGCAGAAG TACCTGAGCT CGCCAGTGAA ATGATGGCTT
2521 ATTACAGGTC AGTGGAGACG CTGAGACCAG TAACATGAGC AGGTCTCCTC TTTCAAGAGT
2581 AGAGTGTAT CTGTGCTTGG AGACCAGATT TTTCCCCTAA ATTGCCTCTT TCAGTGGCAA
2641 ACAGGGTGCC AAGTAAATCT GATTTAAAGA CTACTTTCCC ATTACAGCTT CCTCCAGCCT
2701 TGGGACCTGG AGGCTATCCA GATGTGTTGT TGCAAGGGCT TCCTGCAGAG GCAAATGGGG
2761 AGAAAAGATT CCAAGCCAC AATACAAGGA ATCCCTTTGC AAAGTGTTGGC TTGGAGGGAG
2821 AGGGAGAGCT CAGATTTTAG CTGACTCTGC TGGGCTAGAG GTTAGGCCTC AAGATCCAAC
2881 AGGGAGCACC AGGGTGCCCA CCTGCCAGGC CTAGAATCTG CCTTCTGGAC TGTTCTGCGC
2941 ATATCACTGT GAAACTTGCC AGGTGTTTCA GGCAGCTTTG AGAGGCAGGC TGTTTGCACT
3001 TTCTTATGAA CAGTCAAGTC TTGTACACAG GGAAGGAAAA ATAAACCTGT TTAGAAGACA
3061 TAATTGAGAC ATGTCCCTGT TTTTATTACA GTGGCAATGA GGATGACTTG TTCTTTGAAG
3121 CTGATGGCCC TAAACAGATG AAGGTAAGAC TATGGGTTTA ACTCCAACC CAAGGAAGGG
3181 CTCTAACACA GGGAAAGCTC AAAGAAGGGA GTTCTGGGCC ACTTTGATGC CATGGTATTT
3241 TGTTTTAGAA AGACTTTAAC CTCTCCAGT GAGACACAGG CTGCACCACT TGCTGACCTG
3301 GCCACTTGGT CATCATATCA CCACAGTCAC TCACTAACGT TGGTGGTGGT GGCCACACTT
3361 GGTGGTGACA GGGGAGGAGT AGTGATAATG TTCCCATTTT ATAGTAGGAA GACAACCAAG
3421 TCTTCAACAT AAATTTGATT ATCCTTTTAA GAGATGGATT CAGCCTATGC CAATCACTTG
3481 AGTTAACTC TGAAACCAAG AGATGATCTT GAGAACTAAC ATATGTCTAC CCCTTTTGAG
3541 TAGAATAGTT TTTTGCTACC TGGGGTGAAG CTTATAACAA CAAGACATAG ATGATATAAA
3601 CAAAAGATG AATTGAGACT TGAAAGAAAA CCATTCACCT GCTGTTTGAC CTTGACAAGT
3661 CATTTTACCC GCTTTGGACC TCATCTGAAA AATAAAGGGC TGAGCTGGAT GATCTCTGAG
3721 ATTCCAGCAT CCTGCAACCT CCAGTTCTGA AATATTTTCA GTTGTAGCTA AGGGCATTTG
3781 GGCAGCAAAT GGTCATTTTT CAGACTCATC CTTACAAAGA GCCATGTTAT ATTCCTGCTG
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3841 TCCCTTCTGT TTTATATGAT GCTCAGTAGC CTTCCCTAGGT GCCCAGCCAT CAGCCTAGCT
3901 AGGTACAGTTG TGCAGGTTGG AGGCAGCCAC TTTTCTCTGG CTTTATTTTA TTCCAGTTTG
3961 TGATAGCCTC CCTACGCTC ATAATCCAGT CCTCAATCTT GTTAAAAACA TATTTCTTTA
4021 GAAGTTTTAA GACTGGCATA ACTTCTTGGC TGCAGCTGTG GGAGGAGCCC ATTGGCTTGT
4081 CTGCCTGGCC TTTGCCCCC ATTGCCTCTT CCAGCAGCTT GGCTCTGCTC CAGGCAGGAA
4141 ATTCTCTCCT GCTCAACTTT CTTTGTGCA CTTACAGGTC TCTTTAACTG TCTTTCAAGC
4201 CTTTGAACCA TTATCAGCCT TAAGGCAACC TCAGTGAAGC CTTAATACGG AGCTTCTCTG
4261 AATAAGAGGA AAGTGGTAAC ATTTACAAA AAGTACTCTC ACAGGATTG CAGAATGCCT
4321 ATGAGACAGT GTTATGAAAA AGGAAAAAAA AGAACAGTGT AGAAAAATTG AATACTTGCT
4381 GAGTGAGCAT AGGTGAATGG AAAATGTTAT GGTCATCTGC ATGAAAAAGC AAATCAATAGT
4441 GTGACAGCAT TAGGGATACA AAAAGATATA GAGAAGGTAT ACATGTATGG TGTAAGTGGG
4501 GCATGTACAA AAAGATGACA AGTAGAATCG GGATTTATTC TAAAGAATAG CCTGTAAGGT
4561 GTCCAGAAGC CACATTCTAG TCTTGAGTCT GCCTCTACCT GCTGTGTGCC CTTGAGTACA
4621 CCGTTAACCT CTTGAGCTT CAGAGAGGGA TAATCTTTT ATTTTATTTT ATTTTATTTT
4681 GTTTTGTTTT GTTTTGTTTT GTTTTATGAG ACAGAGTCTC ACTCTGTTGC CCAGGCTGGA
4741 GTGCAGTGGT ACAATCTTGG CTTACTGCAT CCTCCACCTC CTGAGTTCAA GCGATTCTCC
4801 TTTCTCAGTC TCCTGAATAG CTAGGATTAC AGGTGCACCC CACCACACC AGCTAATTTT
4861 TGTATTTTAA GTAGAGAAGG GGTTTCGCCA TGTGGCCAG GCTGGTTTTG AAGTCTGAC
4921 CTAAATGATT CATCCACCTC GGCTTCCCAA AGTGTGGGA TTACAGGCAT GAGCCACCAC
4981 GCCTGGCCCA GAGAGGGATG ATCTTTAGAA GCTCGGGATT CTTTCAAGCC CTTTCTCCT
5041 CTCTGAGCTT TCTACTCTCT GATGTCAAAG CATGGTTCCT GGCAGGACCA CCTCACCAGG
5101 CTCCCTCCCT CGCTCTCTCC GCAGTGCTCC TTCCAGGACC TGGACCTCTG CCCTCTGGAT
5161 GCGGCAATC AGCTACGAAT CTCCGACCAC CACTACAGCA AGGGCTTCAG GCAGGCCGCG
5221 TCAGTTGTG TGGCCATGGA CAAGCTGAGG AAGATGCTGG TTCCCTGCCC ACAGACTTTC
5281 CAGGAGAATG ACCTGAGCAC CTTCTTTCCC TTCATCTTGG AAGAAGGTAG TTAGCCAAGA
5341 GCAGGCAGTA GATCTCCACT TGTGTCTCT TGGAGTCAT CAAGCCCCAG CCAACTCAAT
5401 TCCCCCAGAG CCAAAGCCCT TTAAAGGTAG AAGGCCCAGC GGGGAGACAA AACAAGAAG
5461 GCTGGAACC AAAGCAATCA TCTCTTTAGT GGAACTATT CTTAAAGAAG ATCTTGATGG
5521 CTACTGACAT TTGCAACTCC CTCACCTTTT CTCAGGGGCC TTTCATTAC ATTGTCACCA
5581 GAGGTTCTGA ACCTCCCTGT GGGCTAGTGT TATGACCATC ACCATTTTAT CTAAGTAGT
5641 CTGTTGCTCG GCCACAGTGA GCAGTAATAG ACCTGAAGCT GGAACCCATG TCTAATAGTG
5701 TCAGGTCCAG TGTTCTTAGC CACCCACTC CCAGCTTCAT CCCTACTGGT GTTGTCTCA
5761 GACTTTGACC GTATATGCTC AGGTGTCTC CAAGAATCA AATTTTGCCA CCTCGCCTCA
5821 CGAGGCCTGC CTTCTGATT TTATACCTAA ACAACATGTG CTCCACATT CAGAACCTAT
5881 CTTCTTCGAC ACATGGGATA ACGAGGCTTA TGTGCAGCAT GCACCTGTAC GATCACTGAA
5941 GTGCACGCTC CGGGACTCAC AGCAAAAAAG CTTGGTGATG TCTGGTCCAT ATGAAGTAA
6001 AGCTCTCCAC CTCAGGGGAC AGGATATGGA GCAACAAGGT AAATGGAAC ATCTGGTTT
6061 CCCTGCCTGG CCTCTGGCA GCTTGCTAAT TCTCCATGTT TTAAACAAAG TAGAAAGTTA
6121 ATTTAAGGCA AATGATCAAC ACAAGTGAAG AAAAATATTA AAAAGGAATA TACAACTTT
6181 GGTCTAGAA ATGGCACATT TGATTGCACT GGCCAGTGCA TTTGTTAACA GGAGTGTGAC
6241 CCTGAGAAAT TAGACGGCTC AAGCACTCCC AGGACCATGT CCACCCAAGT CTCTTGGGCA
6301 TAGTGCAATG TCAATTCTTC CACAATATGG GGTCAATTGA TGGACATGGC CTAAGTGCCT
6361 GTGGGTTCTC TCTTCTGTT GTTGAGGCTG AAACAAGAGT GCTGGAGCGA TAATGTGCTC
6421 ATCCCCCTCC CCAGTCTTCC CCCCTTGGCC CAACATCCGT CCCACCCAAT GCCAGGTGGT
6481 TCCTTGTTAGG GAAATTTTAC CGCCAGCAG GAACTTATAT CTCTCCGCTG TAACGGGCAA
6541 AAGTTTCAAG TGCGGTGAAC CCATCATTAG CTGTGGTGAT CTGCCTGGCA TCGTGCCACA
6601 GTAGCCAAAG CCTCTGCACA GGAGTGTGGG CAACTAAGGC TGCTGACTTT GAAGGACAGC
6661 CTCACTCAGG GGGAAGCTAT TTGCTCTCAG CCAGGCCAAG AAAATCCTGT TTCTTTGGAA
6721 TCGGGTAGTA AGAGTGATCC CAGGGCCTCC AATTGACACT GCTGTGACTG AGGAAGATCA
6781 AAATGAGTGT CTCTCTTGG AGCCACTTTC CCAGCTCAGC CTCTCCTCTC CCAGTTTCTT
6841 CCCATGGGCT ACTCTCTGTT CCTGAAACAG TTCTGGTGCC TGATTTCTGG CAGAAGTACA
6901 GCTTCACCTC TTTCTTTTCC TTCCACATTG ATCAAGTTGT TCCGCTCCTG TGGATGGGCA
6961 CATTGCCAGC CAGTGACACA ATGGCTTCCT TCCTTCTTTC CTTGAGCATT TAAATGTAG
7021 ACCCTCTTTC ATTCTCCGTT CTTACTGCTA TGAGGCTCTG AGAAACCTC AGGCCTTTGA
7081 GGGGAAACCC TAAATCAACA AAATGACCTT GCTATTGTCT GTGAGAAGTC AAGTTATCCT
7141 GTGTCTTAGG CCAAGGAACC TCACTGTGGG TTCCACAGA GGCTACCAAT TACATGTATC
7201 CTACTCTCGG GGCTAGGGGT TGGGGTGACC CTGCATGCTG TGTCCCTAAC CACAAGACCC
7261 CTTCTTTTCT TCAGTGGTGT TCTCCATGTC CTTTGTACAA GGAGAAGAAA GTAATGACAA
7321 AATACCTGTG GCCTTGGGCC TCAAGGAAAA GAATCTGTAC CTGTCTGCGG TGTGAAAGA
7381 TGATAAGCCC ACTCTACAGC TGGAGSTAAG TGAATGCTAT GGAATGAAGC CTTTCTCAGC
7441 CTCCTGCTAC CACTTATTCC CAGACAATTC ACCTTCTCCC CGCCCCATC CCTAGGAAAA
7501 GCTGGGAACA GGTCTATTG ACAAGTTTGT CATTAAATGA AATAAATTTA ACATAATTTT
7561 TAACTGCGTG CAACCTTCAA TCCTGCTGCA GAAAAATTA TCATTTTGCT GATGTTATTA
7621 TGTCTACCA TAGTTACAAC CCAACAGAT TATATATTGT TAGGGCTGCT CTCATTGTAT
7681 AGACACCTTG GGAAATAGAT GACTTAAAGG GTCCCATAT CACGTCCACT CCACTCCCAA
7741 AATCACCACC ACTATCACC CTAGCTTTCT CAGCAAAAGC TTCATTTCCA AGTTGATGTC
7801 ATTCTAGGAC CATAAGGAAA AATACAATAA AAAGCCCTG GAAACTAGGT ACTTCAAGAA
7861 GCTCTAGCTT AATTTTCACC CCCCCAAAAA AAAAAAATTC TCACCTACAT TATGCTCCTC

7921 AGCATTGGGC ACTAAGTTT AGAAAAGAAG AAGGGCTCTT TTAATAA... CACAGAAAGT
7981 TGGGGGCCCA GTTACAAC TC AGGAGTCTGG CTCTGATCA TGTGACCTGC TCCTCAGTTT
8041 CCTTTCTGGC CAACCCAAAG AACATCTTTC CCATAGGCAT CTTTGTCCCT TGCCCCACAA
8101 AAATCTTCT TTCTCTTTTC CTGCAGAGTG TAGATCCCAA AAATTACCCA AAGAAGAAGA
8161 TGGAAAAGCG ATTTGTCTTC AACAAGATAG AAATCAATAA CAAGCTGGAA TTTGAGTCTG
8221 CCCAGTTCCC CAACTGGTAC ATCAGCACCT CTCAAGCAGA AAACATGCCC GTCTTCCTGG
8281 GAGGGACCAA AGGCGGCCAG GATATACTG ACTTCACCAT GCAATTGTG TCTTCTTAAA
8341 GAGAGCTGTA CCCAGAGAGT CCTGTGCTGA ATGTGGACTC AATCCCTAGG GCTGGCAGAA
8401 AGGGAACAGA AAGGTTTTTG AGTACGGCTA TAGCCTGGAC TTTCTGTGTG TCTACACCAA
8461 TGCCCAACTG CCTGCCTTAG GGTAGTGCTA AGAGGATCTC CTGTCCATCA GCCAGGACAG
8521 TCAGCTCTCT CCTTTCAGGG CCAATCCCA GCCCTTTTGT TGAGCCAGGC CTCTCTCACC
8581 TCTCTACTC ACTTAAAGCC CGCCTGACAG AAACCACGGC CACATTGGT TCTAAGAAAC
8641 CCTCTGTCAT TCGCTCCAC ATTCTGATGA GCAACCGCT CCCTATTAT TATTATTAT
8701 GTTTGTTGT TTTGATTCA TGGTCTAATT TATTCAAAG GGGCAAGAAG TAGCAGTGTC
8761 TGTAAGAGAG CTTAGTTTTT AATAGCTATG GAATCAATTC AATTTGGACT GGTGTGCTCT
8821 CTTTAAATCA AGTCCTTTAA TTAAGACTGA AAATATATAA GCTCAGATTA TTTAAATGGG
8881 AATATTATA AATGAGCAA TATCATACTG TTCAATGGT CTGAAATAAA CTTCACTGAA
8941 GAAAAAATAA AAAGGCTCTC TCCTGATCAT TGACTGTCTG GATTGACACT GACAGTAAGC
9001 AAACAGGCTG TGAGAGTTCT TGGGACTAAG CCCACTCCTC ATTGCTGAGT GCTGCAAGTA
9061 CCTAGAAATA TCCTTGGCCA CCGAAGACTA TCCTCCTCAC CCATCCCTT TATTTCGTTG
9121 TTCAACAGAA GGATATTCA TGCACATCTG GAACAGGATC AGCTGAAGCA CTGCAGGGAG
9181 TCAGGACTGG TAGTAACAGC TACCATGATT TATCTATCAA TGCACCAAC ATCTGTTGAG
9241 CAAGCGCTAT GTACTAGGAG CTGGGAGTAC AGAGATGAGA ACAGTCACAA GTCCCTCCTC
9301 AGATAGGAGA GGCAGCTAGT TATAAGCAGA ACAAGGTAAC ATGACAGTA GAGTAAGATA
9361 GAAGAACGAA GAGGAGTAGC CAGGAAGGAG GGAGGAGAAC GACATAAGAA TCAAGCCTAA
9421 AGGGATAAAC AGAAGATTTC CACACATGGG CTGGGCCAAT TGGGTGTGCG TTACGCCTGT
9481 AATCCAGCA CTTTGGGTGG CAGGGGAGA AAGATCGCT GAGCCAGGA GTTCAAGACC
9541 AGCCTGGGCA ACATAGTGAG ACTCCCTCT CTACAAAAA TAAATAAATA AATAAAACAA
9601 TCAGCCAGGC ATGCTGGCAT GCACCTGTAG TCCTAGCTAC TTGGGAAGCT GACACTGGAG
9661 GATTGCTTGA GCCCAGAAGT TCAAGACTGC AGTGAGCTTA TCCGTTGACC TGCAGGTGCA
9721 C

(2) INFORMATION FOR SEQ ID NO:2513:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1496 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2513:

1 ACAACCTTT TCGAGGCAAA AGGCAAAAA GGCTGCTCTG GGATTCTCTT CAGCCAATCT
61 TCAATGCTCA AGTGTCTGAA GCAGCCATGG CAGAAGTACC TAAGCTCGCC AGTGAAATGA
121 TGGCTTATTA CAGTGGCAAT GAGGATGACT TGTCTTTGA AGCTGATGGC CCTAAACAGA
181 TGAAGTGCTC CTTCCAGGAC CTGGACCTCT GCCCTCTGGA TGGCGGCATC CAGCTACGAA
241 TCTCCGACCA CCACTACAGC AAGGGCTTCA GGCAGGCCGC GTCAGTTGTT GTGGCCATGG
301 ACAAGCTGAG GAAGATGCTG GTTCCCTGCC CACAGACCTT CCAGGAGAAT GACCTGAGCA
361 CCTTCTTTCC CTTTCTTTT GAAGAAGAAC CTATCTTCTT CGACACATGG GATAACGAGG
421 CTTATGTGCA CGATGCACCT GTACGATCAC TGAATGCAC GCTCCGGGAC TCACAGCAAA
481 AAAGCTTGGT GATGTCTGGT CCATATGAAC TGAAGCTCT CCACCTCCAG GGACAGGATA
541 TGGAGCAACA AGTGGTGTTC TCCATGTCTT TTGTACAAGG AGAAGAAAGT AATGACAAAA
601 TACCTGTGGC CTTGGGCCCTC AAGGAAAAGA ATCTGTACCT GTCCTGCGTG TTGAAAGATG
661 ATAAGCCAC TCTACAGCTG GAGAGTGTAG ATCCCAAAAA TTACCCAAAG AAGAAGATGG
721 AAAAGCGATT TGTCTTCAAC AAGATAGAAA TCAATAACAA GCTGGAATTT GAGTCTGCCC
781 AGTTCCCAA CTGGTACATC AGCACCTCTC AAGCAGAAAA CATGCCCGTC TTCCTGGGAG
841 AGACCAAAGG CGGCCAGGAT ATAAGTACT TCACCATGCA ATTTGTGTCT TCCTAAAGAG
901 AGCTGTACCC AGAGAGTCCT GTGCTGAATG TGGACTCAAT CCCTAGGGCT GGCAGAAAGG
961 GAACAGAAAG GTTTTGTAGT ACGGCTATAG CCTGGACTTT CTTGTTGTCT ACACCAATGC
1021 CCAACTGCCT GCCTTAGGGT AGTGCTAAGA GGATCTCCTG TCCATCAGCC AGGACAGTCA
1081 GCTCTCTCCT TTCAGGGCCA ATCCAGCCC TTTTGTGTAG CCAGGCCCTC CTCACCTCTC
1141 CTACTCACTT AAAGCCCGCC TGACAGAAAC CAGGCCACAT TTTGGTTCTA AGAAACCTC
1201 CTCTGTCTT CGCTCCACA TTCTGATGAG CAACCGCTT CCTATTATT TATTATTG
1261 TTTGTTGTG TTAGTTCATT GGTCTAATTT ATTCAAAGG GGAAGAGT AGCAGTGTCT
1321 GTAAAAGAGC CTAGTTTTTA ATAGCTATGG AATCAATTCA ATTTGGACTG GTGTGCTCTC
1381 TTTAAATCAA GTCCTTTAAT TAAGACTGAA AATATATAAG CTCAGATTAT TTAATGGGA
1441 ATATTATATA ATGAGCAAAT ATCATACTGT TCAATGGTTC TCAATAAAC TTCACT

(2) INFORMATION FOR SEQ ID NO:2514:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 720 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2514:

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1 CTGGCAGGAG TAGCAGCTGC CCCTTGGCGC GACTGCTGGA GCCGCGAACT AGAGAAACAC
61 AGACACGCCT CATAGAGCAA CGGCGTCTCT CGGAGCGTGG AGCCCGCCAA GCTCGAGCTG
121 AGCTTTCGCT TGCCGTCCAC CACTGCCCAC ACTGTCGTTT GCTGCCATCG CAGACCTGCT
181 GCTGACTTCC ATCCCTCTGG ATCCGGCAAG GGCCTGCGAT TTTGACAATG TCAAGATTAT
241 CCGTATATCC CTGTTTGTTC GGATACACCA GTGACGTCCA CTCTAGAAG ACAAGTTAT
301 ATTACTTAAA CAACCAAAGA TATGAAACTA TCCATGAAGA ACAATATTAT CAATACACAG
361 CAGTCTTTTG TAACCATGCC CAATGTGATT GTACCAGATA TTGAAAAGGA AATACGAAGG
421 ATGGAAAATG GAGCATGCAG CTCCTTTTCT GAGGATGATG ACAGTGCCTC TACATCTGAA
481 GAATCAGAGA ATGAAAACCC TCATGCAAGG GGTTCCTTTA GTTATAAGTC ACTCAGAAAG
541 GGAGGACCAT CACAGAGGGA GCAGTACCTG CCTGGTGCCA TTGCCATTTT TAATGTGAAC
601 AACAGCGACA ATAAGGACCA GGAACCAGAA GAAAAAAGA AAAAGAAAAA AGAAAAGAAG
661 AGCAAGTCAG ATGATAAAAA CGAAAATAAA AACGACCCAA AGAAGAAGAT GGAAGAAGCA

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(2) INFORMATION FOR SEQ ID NO:2515:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2002 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2515:

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1 atggccaaag ttccagacat gtttgaagac ctgaagaact gttacagtga aaatgaagaa
61 gacagttcct ccattgatca tctgtctctg aatcagaaat ccttctatca tgtaagctat
121 ggcccaactcc atgaaggctg catggatcaa tctgtgtctc tgagtatctc tgaaacctct
181 aaaacatcca agcttacctt caaggagagc atggtggtag tagcaaccaa cggaaggtt
241 ctgaagaaga gacggttgag ttttaagcaa tccatcactg atgatgacct ggaggccatc
301 gccaatgact cagaggaaga aatcatcaag cctaggtcag cactctttag ctctctgagc
361 aatgtgaaat acaactttat gaggatcatc aaatacgaat tcatcctgaa tgacgccctc
421 aatcaaagta taattcgagc caatgatcag tacctcacgg ctgctgcatt acataatctg
481 gatgaagcag tgaattttga catgggtgct tataagtcac caaaggatga tgctaaaatt
541 accgtgatct taagaatctc aaaaactcaa ttgtatgtga ctgccaaga tgagaccac
601 ccagtgtctg tgaaggagat gcctgagata cccaaaacca tcacaggtag tgagaccac
661 ctctctctct tctgggaaac tcacggcact aagaactatt tcacatcagt tgcccatcca
721 aacttggtta ttgccacaaa gcaagactac tgggtgtgct tggcaggggg gccaccctct
781 atcactgact ttcagatact ggaaaaccag gcgtaggctc ggagtctcac ttgtctcact
841 tgtgcagtgt tgacagttca tatgtaccat gtacatgaag aagctaaact ctttactgtt
901 agtcatttgc tgagcatgta ctgagccttg taattctaaa tgaatgttta cactctttgt
961 aagagtggaa ccaacactaa catataatgt tgttatttaa agaaccacct atattttgca
1021 tagtaccat ctttttaatt attattcttc ataacaattt taggaggacc agagctactg
1081 actatggcta ccaaaaagac tctaccata ttacagatgg gcaaattaag gcataagaaa
1141 actaagaaat atgcacaata gcagttgaaa caagaagcca cagacctagg atttcatgat
1201 ttcatttcaa ctgtttgcct tctgctttta agttgctgat gaactcttaa tcaaatagca
1261 taagtctctg ggacctcagt tttatcattt tcaaaatgga ggaataata cctaagcctt
1321 cctgccgcaa cagtttttta tgctaatacag ggaggtcatt ttggtaaaat acttctcgaa
1381 gccgagcctc aagatgaagg caaagcacga aatgttattt ttttaattat atttatatat
1441 gtatttataa atataattaa gataattata atatactata tttatgggaa ccccttcac
1501 ctctgagtgt gaccaggcat cctccacaat agcagacagt gttttctggg ataagtaagt
1561 ttgatttcat taatacaggg ctttttggtc caagttgtgc ttatcccata gccaggaac
1621 tctgcattct agtacttggg agacctgtaa tcataataa aatgtacatt aattaccttg
1681 agccagtaat tggctccgat tttgactctt ttgccattaa acttacctgg gcattcttgt
1741 ttcatccaat tccacctgca atcaagtcct acaagctaaa attagatgaa ctcaactttg
1801 acaaccatag accactgtta tcaaaacttt cttttctgga atgtaataa tgtttctctc
1861 aggttctaaa aattgtgatc agaccataat gttacattat tatcaacaat agtgattgat
1921 agagtgttat cagtcataac taaataaagc ttgcaagtga gggagtcatt tcattggcgt
1981 ttgagtcagc aaagaagtca ag

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(2) INFORMATION FOR SEQ ID NO:2516:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2027 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2516:

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1 AGCTGCCAGC CAGAGAGGGA GTCATTCAT TGGCGTTTGA GTCAGCAAAG AAGTCAAGAT
61 GGCCAAAGTT CCAGACATGT TTGAAGACCT GAAGAACTGT TACAGTGAAA ATGAAGAAGA
121 CAGTTCCTCC ATTGATCATC TGTCTCTGAA TCAGAAATCC TTCTATCATG TAAGCTATGG
181 CCCACTCCAT GAAGGCTGCA TGGATCAATC TGTGTCTCTG AGTATCTCTG AAACCTTAA
241 AACATCCAAG CTTACCTTCA AGGAGAGCAT GGTGGTAGTA GCAACCAACG GGAAGGTTCT

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301 GAAGAAGAGA CGGTTGAGTT TAAGCCAATC CATCACTGAT GATGACCTGG AGGCCATCGC
361 CAATGACTCA GAGGAAGAAA TCATCAAGCC TAGGTCATCA CCTTTTAGCT TCCTGAGCAA
421 TGTGAAATAC AACTTTATGA GGATCATCAA ATACGAATTC ATCCTGAATG ACCGCTCAA
481 TCAAAGTATA ATTCGAGCCA ATGATCAGTA CCTCACGGCT GCTGCATTAC ATAATCTGGA
541 TGAAGCAGTG AAATTTGACA TGGGTGCTTA TAAGTCATCA AAGGATGATG CTAAAATTAC
601 CGTGATTCTA AGAATCTCAA AAACCTCAATT GTATGTGACT GCCCAAGATG AAGACCAACC
661 AGTGCTGCTG AAGGAGATGC CTGAGATACC CAAAACCATC ACAGGTAGTG AGACCAACCT
721 CCTCTTCTTC TGGGAACTC ACGGCACTAA GAACATTTTC ACATCAGTTG CCCATCCAAA
781 CTGTTTATT GCCACAAAGC AAGACTACTG GGTGTGCTTG GCAGGGGGGC CACCCTCTAT
841 CACTGACTTT CAGATACTGG AAAACCAGGC GTAGGTCTGG AGTCTCACTT GTCTCACTTG
901 TGCAGTGTTG ACAGTTCATA TGTACCATGT ACATGAAGAA GCTAAATCCT TTACTGTTAG
961 TCATTTGCTG AGCATGTACT GAGCCTTGTA ATTCTAAATG AATGTTTACA CTCTTTGTAA
1021 GAGTGGAACC AACACTAACA TATAATGTTG TTATTTAAAG AACACCCTAT ATTTTGCATA
1081 GTACCAATCA TTTTAATTAT TATTCTTCAT AACAATTTTA GGAGGACCAG AGCTACTGAC
1141 TATGGCTACC AAAAAGACTC TACCCATATT ACAGATGGGC AAATTAAGGC ATAAGAAAAC
1201 TAAGAAATAT GCACAATAGC AGTCGAAACA AGAAGCCACA GACCTAGGAT TTCATGATTT
1261 CATTTCACCT GTTTGCCTTC TGCTTTTAAG TTGCTGATGA ACTCTTAATC AAATAGCATA
1321 AGTTTCTGGG ACCTCAGTTT TATCATTTTC AAAATGGAGG GAATAATACC TAAGCCTTCC
1381 TGCCGCAACA GTTTTTTATG CTAATCAGGG AGGTCAATTT GGTAAAATAC TTCTCGAAGC
1441 CGAGCCTCAA GATGAAGGCA AAGCACGAAA TGTTATTTTT TAATTATATAT TTATATATGT
1501 ATTTATAAAT ATATTTAAGA TAATTATAAT ATACTATATT TATGGGAACC CCTTCATCCT
1561 CTGAGTGTGA CCAGGCATCC TCCACAATAG CAGACAGTGT TTTCTGGGAT AAGTAAGTTT
1621 GATTTTCTTA ATACAGGGCA TTTTGGTCCA AGTTGTGCTT ATCCCATAGC CAGGAACTC
1681 TCGTTCTTAG TACTTGGGAG ACCTGTAATC ATATAATAAA TGTACATTAA TTACCTTGAG
1741 CCAGTAATTG GTCCGATCTT TGACTCTTTT GCCATTAAAC TTACCTGGGC ATTCTTGTTT
1801 CATTCAATTC CACCTGCAAT CAAGTCTTAC AAGCTAAAAT TAGATGAAC CAACCTTGAC
1861 AACCATGAGA CCACTGTTAT CAAAACCTTC TTTTCTGGAA TGTAATCAAT GTTCTTCTA
1921 GGTCTTAAA ATTGTGATCA GACCATAATG TTACATTATT ATCAACAATA GTGATTGATA
1981 GAGTGTTATC AGTCATAACT AAATAAAGCT TGCAACAAAA TTCTCTG

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(2) INFORMATION FOR SEQ ID NO:2517:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: 29433 nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2517:

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1 AAGCTTCTAC CCTAGTCTGG TGCTACACTT ACATTGCTTA CATCCAAGTG TGGTTATTTT
61 TGTGGCTCCT GTTATAACTA TTATAGCACC AGGTCTATGA CCAGGAGAA TAGACTGGCA
121 TTAAATCAGA ATAAGAGATT TTGCACCTGC AATAGACCTT ATGACACCTA ACCAAGCCCA
181 TTATTTACAA TTAAACAGGA ACAGAGGGAA TACTTTATCC AACTCACACA AGCTGTTTTT
241 CTCCAGATC CATGCTTTTT TGCGTTTATT ATTTTTTAGA GATGGGGGCT TCACTATGTT
301 GCCCACACTG GACTAAACT CTGGGCTCA AGTGATTGTC CTGCCTCAGC CTCCTGAATA
361 GCTGGGACTA CAGGGGCATG CCATCACACC TAGTTCATTT CCTCTATTTA AAATATACAT
421 GGCTTAAACT CCAACTGGGA ACCCAAACA TTCATTTGCT AAGAGTCTGG TGTCTACCA
481 CCTGAAC TAGTGCCACA GGAATTATAA AAGCTGAGAA ATTCTTTAAT AATAGTAACC
541 AGGCAACATC ATTGAAGGCT CATATGTAAA AATCCATGCC TTCCTTTCTC CCAATCTCCA
601 TTCCCAAAC TAGCCACTGG TTCTGGCTGA GGCCTTACGC ATACCTCCCG GGGCTTGCAC
661 ACACCTTCTT CTACAGAAGA CACACCTTGG GCATATCCTA CAGAAGACCA GGCTTCTCTC
721 TGCTCCTTGG TAGAGGGCTA CTTTACTGTA ACAGGGCCAG GGTGGAGAGT TCTCTCCTGA
781 AGCTCCATCC CCTCTATAGG AAATGTGTTG ACAATATTCA GAAGAGTAAG AGGATCAAGA
841 CTCTTTTGTG CTCAAATACC ACTGTTCTCT TCTCTACCCT GCCCTAACCA GGAGCTTGTC
901 ACCCCAAACT CTGAGGTGAT TTATGCCTTA ATCAAGCAAA CTTCCCTCTT CAGAAAAGAT
961 GGCTCATTTT CCTCAAAAG TTGCCAGGAG CTGCCAAGTA TTCTGCCAAT TCACCCTGGA
1021 GCACAATCAA CAAATTCAGC CAGAACACAA CTACAGCTAC TATTAGAATC ATTATTATTA
1081 ATAAATTCCT CTCCAAATCT AGCCCTTGA CTTCCGATTT CACGATTTCT CCCTTCCTCC
1141 TAGAAACTTG ATAAGTTTCC CGCGCTTCCC TTTTCTAAG ACTACATGTT TGTCATCTTA
1201 TAAAGCAAAG GGGTGAATAA ATGAACCAA TCAATAACTT CTGGAATATC TGCAAAACAC
1261 AATAATATCA GCTATGCCAT CTTTCACTAT TTAGCCAGT ATCGAGTTGA ATGAACATAG
1321 AAAAATACAA AACTGAATTC TTCCCTGTAA ATCCCGGTT TTGACGACGC ACTGTAGCC
1381 ACCTAGCCAC GCCTACTTAA GACAATTACA AAAGGCGAAG AAGACTGACT CAGGCTTAAG
1441 CTGCCAGCCA GAGAGGGAGT CATTTTCATTG GCGTTTGAGT CAGCAAAGGT ATTGTCTCA
1501 CATCTCTGGC TATTAAAGTA TTTTCTGTTG TTGTTTTTCT CTTTGGCTGT TTTCTCTCAC
1561 ATTGCCTTCT CTAAAGCTAC AGTCTCTCCT TTCTTTTCTT GTCCCTCCCT GGTGTTGGTAT
1621 GTGACCTAGA ATTACAGTCA GATTTTCAGAA AATGATTCTC TCATTTTGCT GATAAGGACT
1681 GATTGTTTTT ACTGAGGGAC GGCAGAACTA GTTTCCTATG AGGGCATGGG TGAATACAAC
1741 TAGGCTTCT CATGGGAGG AATCTCTACT ATCCAAATTT ATTAGGAGAA AATTGAAAAT
1801 TTCCAACCTC GTCTCTCTCT TACCTCTGTG TAAGGCAAAAT ACCTTATTTG TGTGTTGTTT
1861 TTGTAACCTC TTCAAACCTT CATTGATTGA ATGCTGTCTC TGGCAATACA TTAGGTTGGG

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1921 CACATAAGGA ATACCAACAT AAATAAAACA TTCTAAAAGA AGTTTACGAT CTAATAAAGG
1981 AGACAGGTAC ATAGCAAAC AATTCAAAGG AGCTAGAAGA TGGAGAAAAT GCTGAATGTG
2041 GACTAAGTCA TTCAACAAAG TTTTCAGGAA GCACAAAGAG GAGGGGCTCC CCTCACAGAT
2101 ATCTGGATTA GAGGCTGGCT GAGCTGATGG TGGCTGGTGT TCTCTGTTGC AGAAGTCAAG
2161 ATGGCCAAAG TTCCAGACAT GTTTGAAGAC CTGAAGAACT GTTACAGGTA AGGAATAAGA
2221 TTTATCTCTT GTGATTAAAT GAGGGTTTCA AGGCTCACCA GAATCCAGCT AGGCATAACA
2281 GTGGCCAGCA TGGGGGCAGG CCGGCAGAGG TTGTAGAGAT GTGTACTAGT CCTGAAGTCA
2341 GAGCAGGTTT AGAGAAGACC CAGAAAAACT AAGCATTGAG CATGTTAAAC TGAGATTACA
2401 TTGGCAGGGA GACCGCCATT TTAGAAAAAT TATTTTTGAG GTCTGCTGAG CCCTACATGA
2461 ATATCAGCAT CAACTTAGAC ACAGCCTCTG TTGAGATCAC ATGCCCTGAT ATAAGATGG
2521 GTTTTACTGG TCCATTCTCA GGAAAACTTG ATCTCATTCA GGAACAGGAA ATGGCTCCAC
2581 AGCAAGCTGG GCATGTGAAC TCACATATGC AGGCAAATCT CACTCAGATG TAGAAGAAAG
2641 GTAAATGAAC ACAAGATAA AATTACGGAA CATATTAAAC TAACATGATG TTTCCATTAT
2701 CTGTAGTAAA TACTAACACA AACTAGGCTG TCAAAATTTT GCCTGGATAT TTTACTAAGT
2761 ATAAATTATG AAATCTGTTT TAGTGAATAC ATGAAAGTAA TGTGTAACAT ATAATCTATT
2821 TGGTTAAAT AAAAAGGAAG TGCTTCAAAA CCTTTCTTTT CTCTAAAGTA GCTTAACATT
2881 CTTCCCTGAA CTTCAATTAA AGCTCTTCAA TTTGTTAGCC AAGTCCAATT TTTACAGATA
2941 AAGCACAGGT AAAGCTCAA GCCTGTCTTG ATGACTACTA ATTCCAGATT AGTAAGATAT
3001 GAATTACTCT ACCTATGTGT ATGTGTAGAA GTCCTTAAAT TTCAAAGATG ACAGTAATGG
3061 CCATGTGTAT GTGTGTGACC CACAACATC ATGGTCATTA AAGTACATTG GCCAGAGACC
3121 ACATGAAATA ACAACAATTA CATTCTCATC ATCTTATTTT GACAGTGAA ATGAAGAGA
3181 CAGTTCTCTC ATTGATCATC TGTCTCTGAA TCAGGTAAGC AAATGACTGT AATTCTCATG
3241 GGACTGCTAT TCTTACACAG TGGTTTCTTC ATCCAAAGAG AACAGCAATG ACTTGAATCT
3301 TAAATACTTT TGTTTTACCC TCACTAGAGA TCCAGAGACC TGTCTTTTAT TATAAGTGAG
3361 ACCAGCTGCC TCTCTAAACT AATAGTTGAT GTGCATTGGC TTCTCCGAGA ACAGAGCAGA
3421 ACTATCCCAA ATCCCTGAGA ACTGGAGTCT CCTGGGGCAG GCTTCATCAG GATGTTAGTT
3481 ATGCCATCCT GAGAAAGCCC CGCAGGCCGC TTCACCAGGT GTCTGTCTCC TAACGTGATG
3541 TGTGTGGTGT GTCTTCTCTG ACACCAGCAT CAGAGGTTAG AGAAAGTCTC CAAACATGAA
3601 GCTGAGAGAG AGGAAGCAAG CCAGCTGAAA GTGAGAAGTC TACAGCCACT CATCAATCTG
3661 TGTATTGTGT TTTGGAGACC ACAAAATAGAC ACTATAAGTA CTGCCTAGTA TGTCTCAGT
3721 ACTGGCTTTA AAAGCTGTCC CCAAAGGAGT ATTTCTAAAA TATTTTGAGC ATTGTTAAGC
3781 AGATTTTAA CCTCCTGAGA GGGAACTAAT TGGAAAGCTA CCACTCACTA CAATCATTGT
3841 TAACCTATTT AGTTACAACA TCTCATTTT GAGCATGCAA ATAAATGAAA AAGTCTTCCT
3901 AAAAAATCA TCTTTTATC CTGGAAGGAG GAAGGAAGGT GAGACAAAAG GGAGAGAGGG
3961 AGGGAAGCCT AATGAAACAC CAGTTACCTA AGACCAGAAT GGAGATCCTC CTCACTACCT
4021 CTGTTGAATA CAGCACCTAC TGAAAGAACT TTCATTCCTT GACCATGAAC AGCCTCTCAG
4081 CTTCTGTTTT CTTCTCTCAC AGAAATCCTT CTATCATGTA AGCTATGGCC CACTCCATGA
4141 AGGCTGCATG GATCAATCTG TGTCTCTGAG TATCTCTGAA ACCTCTAAAA CATCCAAGCT
4201 TACCTTCAAG GAGAGCATGG TGGTAGTAGC AACCAACGGG AAGGTTCTGA AGAAGAGACG
4261 GTTGAGTTTA AGCCAATCCA TCACTGATGA TGACCTGGAG GCCATCGCCA ATGACTCAGA
4321 GGAAGGTAAG GGGTCAAGCA CAATAATATC TTTCTTTTAC AGTTTTAAGC AAGTAGGGAC
4381 AGTAGAATTT AGGGGAAAAT TAAACGTGGA GTCAGAATAA CAAGAAGACA ACCAAGCATT
4441 AGTCTGGTAA CTATACAGAG GAAAATTAAT TTTTATCCTT CTCCAGGAGG GAGAAATGAG
4501 CAGTGGCCTG AATCGAGAAT ACTTGCTCAC AGCCATTATT TCTTAGCCAT ATTGTTAAGG
4561 TCGTGTGACT TTTAGCCTTT CAGGAGAAAG CAGTAATAAG ACCACTTACG AGCTATGTTT
4621 CTCTCATACT AACTATGCCT CCTTGGTCAT GTTACATAAT CTTTTCGTGA TTCAGTTTCC
4681 TCTACTGTAA AATGGAGATA ATCAGAATCC CCCACTCATT GGATTGTTGT AAAGATTAAG
4741 AGTCTCAGGC TTTACAGACT GAGCTAGCTG GGCCCTCCTG ACTGTTATAA AGATTAAATG
4801 AGTCAACATC CCCTAACTTC TGGACTAGAA TAATGTCTGG TACAAAGTAA GCACCCAATA
4861 AATGTTAGCT ATTACTATCA TTATTATTAT TATTTTATT TTTTTTTGT AGATGGAGTC
4921 TGGCTCTGTC ACCCAGGCTG GAGTGCAGTG GCACAATCTC GGCTCACTGC AAGCTCTGCC
4981 TCCTGGGTTT ATGCCATTCT CCTGCCTCAG CCTCCCGAGT AAGCTGGGAA TACAGGCACC
5041 CGCCACTGTT CCCGGCTAAT TTTTGTATT TTTAGTAGAG ACGGAGTTT ACCGTGGTCT
5101 CCATCTCCTC GTGATCCACC CACCTTGGCC TCCCAAAGTG CCGGGATTAC AGGCGTGAGC
5161 CACCGCGCCC GGCCTATTAT TATTATTATT ACTACTACTA CTACCTATAT GAATACTACC
5221 AGCAATACTA ATTTATTAAT GACTGGATTA TGTCTAAACC TCACAAGAA CTCTACCTTT
5281 CATTTTACAT AAAAGGAAAC TAAGCTCATT GAGATAGGTA AACTGCCCAA TGGCATACAT
5341 CTGTAAGTGG GAGAGCCTCA AATCTAATTC AGTTCTACCT GAGTAAAAAA ATCATGGTTT
5401 CTCCTCCATC CCTTTACTGT ACAAGCCTCC ACATGAAC TAACCCAAAT ATTCTGTTT
5461 TTAAGATAAT ACCTAAGCAA TAACGCATGT TCACCTAGAA GGTTTTAAAA TGTAACAAAA
5521 TATAAGAAAA TAAAAATCAC TCATATCGTC AGTGAGAGTT TACTACTGCC AGCACTATGG
5581 TATGTTTCCT TAAAATCTTT GCTATACACA TACCTACATG TGAACAAATA TGTCTAACAT
5641 CAAGACCACA CTATTTACAA CTTTATATCC AGCTTTTCTT ACTTAGCAAT TATTGAGGA
5701 CATTTTAGAG TGCCCGTTTT TCACCATTAT AAGCAATGCA ACAATGAACA TCTGTATAAA
5761 TAAATATTCA TTTCTCTCAC CCTTTATTTT CTTAGAATAT ATTCTAGAA GTAGAATTTT
5821 CCAGAGCCAT GAGGATTTGT GACGCTATTG ATATGTGCCA CTTTGCATC TCTGTGACAT
5881 ATATAATTAT TTTAATGCA TTCATTTTTT TCTCAGAGTG CATTCGTTT AAAACATAGA
5941 CGGGAAATAC TGGTAGTCTT CCTGTCTCAG TAGAAACACC CAAACAATGA AAAATGAAAA

6001	AGTTGCACAA	ATAGTCTCTA	AAAACAATGA	AACATTGGCC	TGAGGAATG	AAGTTTAAAA
6061	AGAAGCACAT	AAGCAACAAC	AAGGATAATC	CTAGAAAACC	AGTTCTGCTG	ACTGGGTGAT
6121	TTCACTTCTC	TTTGCTTCTT	CATCTGGATT	GGAATATTCC	TAATACCCCT	TCCAGAACTA
6181	TTTTCCCTGT	TTGTACTAGA	CTGTGTATAT	CATCTGTGTT	TGTACATAGA	CATTAACTCTG
6241	CACCTGTGAT	CATGGTTTTA	GAAATCATCA	AGCCTAGGTC	ATCACCTTTT	AGCTTCCTGA
6301	GCAATGTGAA	ATACAACCTT	ATGAGGATCA	TCAAATACGA	ATTCATCCTG	AATGACGCCC
6361	TCAATCAAAG	TATAATTGCA	GCCAATGATC	AGTACCTCAC	GGCTGCTGCA	TTACATAATC
6421	TGGATGAAGC	AGGTACATTA	AAATGGCACC	AGACATTTCT	GTCATCCTCC	CCTCCTTTCA
6481	TTTACTTATT	TATTTATTTT	AATCTTTCTG	CTTGCAAAAA	ACATACCTCT	TCAGAGTTCT
6541	GGGTGTCACA	ATTCTTCCAG	AATAGCTTGA	AGCACAGCAC	CCCCATAAAA	ATCCCAAGCT
6601	AGGGCAGAAG	GTTCAACTAA	ATCTGGAAGT	TCCACAAGAG	AGAAGTTTCC	TATCTTTGAG
6661	AGTAAAGGGT	TGTGCACAAA	GCTAGCTGAT	GTACTACCTC	TTTGGTTCTT	TCAGACATTC
6721	TTACCCCTCA	TTTTAAACT	GAGGAACTG	TCAGACATAT	TAAATGATT	ACTCAGATTT
6781	ACCCAGAAGC	CAATGAAGAA	CAATCACTCT	CCTTTAAAAA	GTCGTGTGAT	CAAACCTACA
6841	AGTAACACCA	AACCAGGAAG	ATCTTTATTA	TCTCTGATAA	CATATTTGTG	AGGCAAAACC
6901	TCCAATAAGC	TACAAATATG	GCTTAAAGGA	TGAAGTTTAG	TGTCCAAAAA	CTTTTATCAC
6961	ACACATCCAA	TTTTCATGGC	GGACATGTTT	TAGTTTCAAC	AGTATACATA	TTTTCAAAGG
7021	TCCAGAGAGG	CAATTTTGCA	ATAAACAGC	AAGACTTTTT	CTGATTGGAT	GCACCTCAGC
7081	TAACATGCTT	TCAACTCTAC	ATTTACAAAT	TATTTGTGT	TCTATTTTTC	TACTTAATAT
7141	TATTTCTGCA	ATTTTCCCAA	TATTGACATC	GTGTATGTAT	TGCCATTTT	TAATATCACT
7201	AGACAATTCA	ATCAGGTTGC	TACGTTGGTC	CCTTGGGTTT	ACTCTAAATA	GCTTGATTGC
7261	AAATATCTTT	GTATATATTA	TTGTTTTTTC	TCCTATCTTG	TAATTTCTTT	GAGCACATCC
7321	CAAAGAGGAA	TGCCTAGATC	AATGGGCACA	AATAATTTGA	CAGCTCTTAT	TAAACATTAT
7381	TCTGTAAAGT	AAAACGAAC	TACTTTTCTG	TATCACTAGC	AACATATGAG	TGTATCAGCT
7441	TCCTAAACCC	CTCCATGTTA	GGTCATTATG	AACTTATGAT	CTAACAAAT	ACAGGGTCTT
7501	ATCCCACTAA	TGAAATTATA	AGAGATTCAA	CACCTATTCA	GCCCCGAAGG	ATTCAATCAA
7561	CGTAGAAAAT	TCTAAGAACA	TTAACCAAGT	ATTTACCTGC	CTAGTGAGTG	TGGAAGACAT
7621	TGTGAAGGAC	ACAAAGATGT	ATAGAATTCC	ATTCCTGACT	TCCAGGTATT	TACACCATAG
7681	GTGGGGACCT	AACTACACAC	ACACACACAC	ACACACACAC	ACACACACAC	ACCATGCACA
7741	CACAATCTAC	ATCAACACTT	GATTTTATAC	AAATACAATG	AATTTACTTT	CTTTTGGTT
7801	CTTCTCTTCA	CCAGTGAAAT	TTGACATGGG	TGCTTATAAG	TCATCAAAGG	ATGATGCTAA
7861	AATTACCGTG	ATTCTAAGAA	TCTCAAAAC	TCAATTGTAT	GTGACTGCCC	AAGATGAAGA
7921	CCAACCAGTG	CTGCTGAAGG	TCAGTTGTCC	TTTGTCTCCA	ACTTACCTTC	ATTTACATCT
7981	CATATGTTTG	TAAATAAGCC	CAATAGGCAG	ACACCTCTAA	CAAGGTGACA	CTGTCTCTT
8041	TCCTTCTTAC	CACAGCCCCC	ACCTACCCAC	CCCACTCCCA	TTGATTCCAG	AGGCGTGCCT
8101	AGGCAGGATC	TATGAGAAAA	TATAACAGAG	AGTAAGAGGA	AAATTACCTT	CTTTCTTTT
8161	CCTTTCCCTG	CCTGACCTTA	TTCACTCTCC	ATCCAGAGC	ATCCATTTAT	TCCATTGATC
8221	TTTACTGACA	TCTATTATCT	GACCTACACA	ATACTAGACA	TTAGGACAAT	GTGGCTGACC
8281	TCCAAGAAAC	TCAAATAAGC	CAACTGAGAT	CAGAGAGGAT	TAATCACCTG	CCAATGGGCA
8341	CAAAGCAACA	AGCTGGGAGC	CAAGTCCCAA	AATGGGGCCT	GCTGCTTCCA	GTTCCCTCT
8401	CTCTGCATTG	ATGTCAGCAT	TATCCTTCGT	CCCAGTCTG	TCTCCACTAC	CACCTTCCCC
8461	CTCAAACACA	CACACACACA	ACAGCCTTAG	ATGTTTTCTC	CACTGATAAG	TAGGTGACTC
8521	AATTTGTAAG	TATATAATCC	AAGACCTTCT	ATTCCTCAAGT	AGAATTTATG	TGCTGCTCTG
8581	TGCTTTTCTA	CCTGGATCAA	GTGATGTCTA	CAGAGTAGGG	CAGTAGCTTC	ATTCATGAAC
8641	TCATTCAACA	AGCATTATTC	ACTGAGAGCC	TTGTATTTT	CAGGCATAGT	GCCAACAGCA
8701	GTGTGGACAG	TGGTGCATCA	AAGCCTCTAG	TCTCATAGAA	CTTAGTCTTC	TGGAGGATAT
8761	GGAAAACAGA	CAACCCAAAC	AACCAACAAA	AGAGCAAGAT	GCTGCAAAAA	AAAAAAAAT
8821	GAATAGGGTG	CTAAGATAGA	GAAAAGTGGG	AGAGTGCTAT	TTAGACAAAG	TGGTAAAAAC
8881	AAAGCCCTTT	GTGAGATGAG	AGCTGCCGAC	AGAGGGGGCG	GGTCATGGTT	GTGGGTTTTT
8941	GGGTAGGACA	TTCAGAGGAG	GGGGCGGGTC	GTGGTTGTGG	GTTTTTGGGT	AGGACATTCA
9001	GAGGAGGGGG	CGGGTCGTGG	TTGTGGGTTT	TTGGGTAGGA	CATTAGAGG	AGGGGGCGGG
9061	TCGTGGTTGT	GGGTTTTTGG	GTAGGACATT	CAGAGGAGGG	GGCGGGTCGT	GGTTGTGGGT
9121	TTTTGGGACA	TTCAGAGGAG	TCTGAATGCA	CCCAGGCCTA	CAACTTCAAG	ATGGTAAAGG
9181	ACAGCTCCAA	GGATCAGAAG	AAGCATTCTT	GGAATGGGG	CATTTTGAGA	AGGAGGAAAA
9241	ATATGCAGAG	ACTAGTGCTT	GCAGAGCTTG	CATTTGGATT	TCATTTGAGG	TACAATGAAA
9301	ACCCATTAAT	GGGTTTCACA	CAGTGCAATG	GCCTGACCTC	ACTTATATTT	CCTAAAAATG
9361	AAAACAGATC	AGAAAGGAAG	CAATAGAGAA	GCAGAAAGTC	CAATGAGGAG	GTTCCACAGC
9421	AGTCATGGGG	GTGGGGTAAG	GAAAAGAAGT	GGAAAGAAAC	AGACAGAATT	GGGTATATAT
9481	TTGGAGATAG	AACCAACAGA	AGGAAGAGGA	GAAACAACAT	TTACTGAGAA	GGGAAAAAGT
9541	AGGAGAGGAA	TAGGTTTGGG	AAATAAATCC	TGCTGACATT	GGAAACCCCA	AGGAAGCCTC
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1201 CTCTGTATT CGCTCCACA TTCTGATGAG CAACCGCTT CCTATTTAT TATTTATTG
1261 TTTGTTTGT TTGATTCAAT GGTCTAATTT ATTCAAAGGG GGCAAGAAGT AGCAGTGTCT
1321 GTAAAGAGC CTAGTTTTTA ATAGCTATGG AATCAATTCA ATTTGGAGT GTGTGCTCTC
1381 TTTAAATCAA GTCCTTTAAT TAAGCTGAA AATATATAAG CTCAGATTAT TTAATGGGA
1441 ATATTTATAA ATGAGCAAAT ATCATACTGT TCAATGGTTC TCAATAAAC TTCACT
1 CTGGCAGGAG TAGCAGCTGC CCCTTGGCGC GACTGCTGGA GCCGGAAGT AGAGAAACAC
61 AGACACGCT CATAGAGCAA CGGCGTCTCT CGGAGCGTGG AGCCCCGCAA GCTCGAGCTG
121 AGCTTTCGCT TGCCGTCCAC CACTGCCAC ACTGTCTGTT GCTGCCATCG CAGACCTGCT
181 GCTGACTTCC ATCCCTCTGG ATCCGGCAAG GGCCTGCGAT TTTGACAATG TCAAGATTAT
241 CCGTATATCC CTGTTTGTTC GGATACACCA GTGACGTCCA CTCTAGAAAG ACAAGTTAT
301 ATTACTTAAA CAACCAAAGA TATGAACTA TCCATGAAGA ACAATATTAT CAATACACAG
361 CAGTCTTTG TAACCATGCC CAATGTGATT GTACCAAGTA TTGAAAAGGA AATACGAAGG
421 ATGGAAAATG GAGCATGCAG CTCCTTTTCT GAGGATGATG ACAGTGCCCT TACATCTGAA
481 GAATCAGAGA ATGAAAACCC TCATGCAAGG GGTTCCTTTA GTTATAAGTC ACTCAGAAAG
541 GGAGGACCAT CACAGAGGGA GCAGTACCTG CCTGGTGCCA TTGCCATTTT TAATGTGAAC
601 AACAGCGACA ATAAGGACCA GGAACAGAA GAAAAAAGA AAAAGAAAA AGAAAAAGAG
661 AGCAAGTCAG ATGATAAAAA CGAAAATAAA AACGACCCAA AGAAGAAGT GGAAGCGCA
1 ATGGCCAAAG TTCCAGACAT GTTGAAGAC CTGAAGAACT GTTACAGTGA AAATGAAGAA
61 GACAGTCTCT CCATTGATCA TCTGTCTCTG AATCAGAAAT CCTTCTATCA TGTAAGCTAT
121 GGCCCACTCC ATGAAGGCTG CATGGATCAA TCTGTGTCTC TGAGTATCTC TGAAACCTCT
181 AAAACATCCA AGCTTACCTT CAAGGAGAGC ATGGTGGTAG TAGCAACCAA CGGGAAGGTT
241 CTGAAGAAGA GACGGTTGAG TTTAAGCCAA TCCATCACTG ATGATGACCT GGAGGCCATC
301 GCCAATGACT CAGAGGAAGA AATCATCAAG CCTAGGTCAG CACCTTTTAT CTTCTGAGC
361 AATGTGAAAT ACAACTTTAT GAGGATCATC AAATACGAAT TCATCTGAA TGACGCCCTC
421 AATCAAAGTA TAATTCGAGC CAATGATCAG TACCTCACGG CTGCTGCATT ACATAATCTG
481 GATGAAGCAG TGAAATTTGA CATGGGTGCT TATAAGTCAT CAAAGGATGA TGCTAAATTT
541 ACCGTGATTC TAAGAATCTC AAAAATCAA TTGTATGTGA CTGCCAAGA TGAAGACCAA
601 CCAAGTCTGC TGAAGGAGAT GCCTGAGATA CCCAAACCA TCACAGGTAG TGAGACCAAC
661 CTCCTCTTCT TCTGGGAAAC TCACGGCACT AAGAACTATT TCACATCAGT TGCCCATCCA
721 AACTTGTTTA TTGCCACAAA GCAAGACTAC TGGGTGTGCT TGGCAGGGG GCCACCTCT
781 ATCACTGACT TTCAGATACT GGAAAACCA GCGTAGGTCT GGAGTCTCAC TTGTCTCACT
841 TGTGCACTGT TGACAGTTCA TATGTACCAT GTACATGAAG AAGCTAAATC CTTTACTGTT


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901 AGTCATTTGC TGAGCATGTA CTGAGCCTTG TAATTCTAAA TGAATGTTTA CACTCTTTGT
961 AAGAGTGGAA CCAACACTAA CATATAATGT TGTATTATAA AGAACACCCT ATATTTTGCA
1021 TAGTACCAAT CATTTTAATT ATTATTCTTC ATAACAATTT TAGGAGGACC AGAGCTACTG
1081 ACTATGCTA CCAAAAAGAC TCTACCCATA TTACAGATGG GCAAATTAAG GCATAAGAAA
1141 ACTAAGAAAT ATGCACAATA GCAGTTGAAA CAAGAAGCCA CAGACCTAGG ATTTTCATGAT
1201 TTCATTTCAA CTGTTTGCTT TCTGCTTTTA AGTTGCTGAT GAACTCTTAA TCAAAATAGCA
1261 TAAGTTTCTG GGACCTCAGT TTTATCATT TCAAATGGA GGAATAATA CCTAAGCCTT
1321 CCTGCCGCAA CAGTTTTTTA TGCTAATCAG GGAGGTCATT TTGGTAAAT ACTTCTCGAA
1381 GCCGAGCCTC AAGATGAAGG CAAAGCAGCA AATGTTATTT TTTAATTATT ATTTATATAT
1441 GTATTTATAA ATATATTTAA GATAATTATA ATATACTATA TTTATGGGAA CCCCTTCATC
1501 CTCTGAGTGT GACCAGGCAT CCTCCACAA AGCAGACAGT GTTTTCTGGG ATAAGTAAAT
1561 TTGATTTTCA TAATACAGGG CATTTTGGTC CAAGTTGTGC TTATCCATA GCCAGGAAAC
1621 TCTGCATTCT AGTACTTGGG AGACCTGTAA TCATATAATA AATGTACATT AATTACCTTG
1681 AGCCAGTAAT TGGTCCGATC TTGACTCTT TTGCCATTAA ACTTACCTGG GCATTCTTGT
1741 TTCATTCAAT TCCACCTGCA ATCAAGTCCT ACAAGCTAAA ATTAGATGAA CTCAACTTTG
1801 ACAACCATAG ACCACTGTTA TCAAACTTT CTTTCTGGA ATGTAATCAA TGTTTCTTCT
1861 AGGTTCATAA AATTGTGATC AGACCATTA GTTACATTAT TATCAACAAT AGTGATTGAT
1921 AGAGTGTAT CAGTCATAAC TAAATAAAGC TTGCAAGTGA GGGAGTCATT TCATTGGCGT
1981 TTGAGTCAGC AAAGAAGTCA AG
1 AGCTGCCAGC CAGAGAGGGA GTCATTTTCA TGGCGTTTGA GTCAGCAAAG AAGTCAAGAT
61 GGCCAAAGTT CCAGACATGT TTGAAGACCT GAAGAAGTGT TACAGTGAAA ATGAAGAAGA
121 CAGTTCCTCC ATTGATCATC TGTCTCTGAA TCAGAAATCC TTCTATCATG TAAGCTATGG
181 CCCACTCCAT GAAGGCTGCA TGGATCAATC TGTGTCTCTG AGTATCTCTG AAACCTCTAA
241 AACATCCAAG CTTACCTTCA AGGAGAGCAT GGTGGTAGTA GCAACCAAGT GGAAGGTTCT
301 GAAGAAGAGA CGGTTGAGTT TAAGCCAATC CATCACTGAT GATGACCTGG AGGCCATCGC
361 CAATGACTCA GAGGAAGAAA TCATCAAGCC TAGGTCATCA CCTTTTAGCT TCCTGAGCAA
421 TGTGAAATAC AACTTTATGA GGATCATCAA ATACGAATTC ATCCTGAATG ACGCCCTCAA
481 TCAAAGTATA ATTCGAGCCA ATGATCAGTA CCTCACGGCT GCTGCATTAC ATAATCTGGA
541 TGAAGCAGTG AAATTTGACA TGGGTGCTTA TAAGTCATCA AAGGATGATG CTAAATATAC
601 CGTGATTCTA AGAATCTCAA AAATCAATT GTATGTGACT GCCCAAGATG AAGACCAACT
661 AGTGCTGCTG AAGGAGATGC CTGAGATACC CAAAACCATC ACAGGTAGTG AGACCAACCT
721 CCTCTCTTTC TGGGAACTC ACGGCACTAA GAACTATTTT ACATCAGTTG CCCATCCAAA
781 CTTGTTTATT GCCACAAAGC AAGACTACTG GGTGTGCTTG GCAGGGGGGC CACCCTCTAT
841 CACTGACTTT CAGATACTGG AAAACCAGGC GTAGGTCTGG AGTCTCACTT GTCTCACTTG
901 TGCAGTGTG ACAGTTCATA TGTACCATGT ACATGAAGAA GCTAAATCCT TTAGTGTAG
961 TCATTTGCTG AGCATGTACT GAGCCTTGTA ATTCTAAATG AATGTTTACA CTCTTTGTAA
1021 GAGTGAAGCC AACACTAACA TATAATGTTG TTATTTAAAG AACACCCTAT ATTTTGATA
1081 GTACCAATCA TTTTAATTAT TATTCTTCAT AACAAATTTA GGAGGACCAG AGCTACTGAC
1141 TATGGCTACC AAAAAGACTC TACCATATT ACAGATGGGC AAATTAAGGC ATAAGAAAAC
1201 TAAGAAATAT GCACAATAGC AGTCGAAACA AGAAGCCACA GACCTAGGAT TTCATGATTT
1261 CATTCAACT GTTGCCTTC TGCTTTTAAG TTGCTGATGA ACTCTTAATC AAATAGCATA
1321 AGTTCTGGG ACCTCAGTTT TATCATTTTC AAAATGGAGG GAATAATACC TAAGCCTTCC
1381 TGCCGCAACA GTTTTTATG CTAATCAGGG AGGTCAATTT GGTAAAAGG TTCTCGAAGC
1441 CGAGCCTCAA GATGAAGGCA AAGCACGAAA TGTATTTTTT TAATTATTAT TTATATATGT
1501 ATTTATAAAT ATATTTAAGA TAATTATAAT ATACTATATT TATGGGAACC CCTTCATCCT
1561 CTGAGTGTGA CCAGGCATCC TCCACAATAG CAGACAGTGT TTTCTGGGAT AAGTAAGTTT
1621 GATTTCATTA ATACAGGGCA TTTTGGTCCA AGTTGTGCTT ATCCCATAGC CAGGAACTC
1681 TGCACTCTAG TACTTGGGAG ACCTGTAATC ATATAATAAA TGTACATTAA TTACCTTGAG
1741 CCAGTAATTG GTCCGATCTT TGAATCTTTT GCCATTAAAC TTACCTGGGC ATTCTTGTTT
1801 CATTCAATTC CACCTGCAAT CAAGTCCTAC AAGCTAAAAT TAGATGAATC CAACTTTGAC
1861 AACCATGAGA CCACTGTTAT CAAAACCTTC TTTTCTGGAA TGTAATCAAT GTTTCTTCTA
1921 GGTTCATAAA ATTGTGATCA GACCATAATG TTACATTATT ATCAACAATA GTGATTGATA
1981 GAGTGTATC AGTCATAACT AAATAAAGCT TGCAACAAAA TTCTCTG

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(2) INFORMATION FOR SEQ ID NO:2518:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1308 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2518:

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1 GCCACGTGCT GCTGGGTCTC AGTCCTCCAC TTCCCGTGTC CTCTGGAAGT TGTCAGGAGC
61 AATGTTGCGC TTGTACGTGT TGGTAATGGG AGTTTCTGCC TTCACCCTTC AGCCTGCGGC
121 ACACACAGGG GCTGCCAGAA GCTGCCGGTT TCGTGGGAGG CATTACAAGC GGGAGTTCAG
181 GCTGGAAGGG GAGCCTGTAG CCCTGAGGTG CCCCAGGTG CCCTACTGGT TGTGGGCCCTC
241 TGTGAGCCCC CGCATCAACC TGACATGGCA TAAAAATGAC TCTGCTAGGA CGGTCCCAGG
301 AGAAGAAGAG ACACGGATGT GGGCCCAGGA CGGTGCTCTG TGGCTTCTGC CAGCCTTGCA
361 GGAGGACTCT GGCACCTACG TCTGCACTAC TAGAAATGCT TCTTACTGTG ACAAAATGTC
421 CATTGAGCTC AGAGTTTTTG AGAATACAGA TGCTTTCCTG CCGTTCATCT CATACCCGCA

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481 AATTTTAACC TTGTCAACCT CTGGGGTATT AGTATGCCCT GACCTGAGTG AATTCACCCG
541 TGACAAAACCT GACGTGAAGA TTCAATGGTA CAAGGATTCT CTCTTTTGG ATAAAGACAA
601 TGAGAAATTT CTAAGTGTGA GGGGGACCAC TCACCTTACTC GTACACGATG TGGCCCTGGA
661 AGATGCTGGC TATTACCGCT GTGTCTGAC ATTTGCCCAT GAAGGCCAGC AATACAACAT
721 CACTAGGAGT ATTGAGCTAC GCATCAAGAA AAAAAAGAA GAGACCATTG CTGTGATCAT
781 TTCCCCCCTC AAGACCATAT CAGCTTCTCT GGGGTCAAGA CTGACAATCC CGTGTAAAGT
841 GTTTCTGGGA ACCGGCACAC CCTTAACCAC CATGCTGTGG TGGACGCCCA ATGACACCCA
901 CATAGAGAGC GCCTACCCGG GAGGCCGCGT GACCGAGGGG CCACGCCAGG AATATTCAGA
961 AAATAATGAG AACTACATTG AAGTGCCATT GATTTTGTG CCGTGCACAA GAGAGGATTT
1021 GCACATGGAT TTTAAATGTG TTGTCCATAA TACCTGAGT TTTGACACAC TACGCACCAC
1081 AGTCAAGGAA GCCTCCTCCA CGTTCTCTG GGGCATTGTG CTGGCCCCAC TTTCACTGGC
1141 CTCTTTGGTT TTGGGGGGAA TATGGATGCA CAGACGGTGC AAACACAGAA CTGAAAAGC
1201 AGATGGTCTG ACTGTGCTAT GGCCTCATCA TCAAGACTTT CAATCCTATC CCAAGTGAAA
1261 TAAATGGAAT GAAATAATTC AAACACAAA AAAAAAAAA AAAAAAAA

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(2) INFORMATION FOR SEQ ID NO:2519:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2156 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2519:

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1 GCCGGAGCCG ACTCGGAGCG CGCGGCGCGG CCGGGAGGAG CCGAGCGCGC CGGGCGCGGC
61 GTGGGGGGCG CGGCTGCCCC GCGCGCCAG GGAGCGGCGG GAATGTGACA ATCGCGCGCC
121 CGCACCCTAG CACTCCTCGC TCGGCTCCTA GGGCTCTCGC CCTCTGAGCT GAGCCGGGTT
181 CCGCCCGGGC TGGGATCCCA TCACCCTCCA CGGCCGTCCG TCCAGGTAGA CGCACCCTCT
241 GAAGATGGTG ACTCCCTCCT GAGAAGCTGG ACCCCTTGGT AAAAGACAAG GCCTTCTCCA
301 AGAAGAATAT GAAAGTGTTA CTCAGACTTA TTTGTTTCAT AGCTCTACTG ATTTCTTCTC
361 TGGAGGCTGA TAAATGCAAG GAACGTGAAG AAAAAATAAT TTTAGTGTCA TCTGCAAATG
421 AAATTGATGT TCGTCCCTGT CCTCTTAACC CAAATGAACA CAAAGGCACT ATAATTGGT
481 ATAAAGATGA CAGCAAGACA CCTGTATCTA CAGAACAAGC CTCCAGGATT CATCAACACA
541 AAGAGAAACT TTGGTTTGTG CTGCTAAGG TGGAGGATTC AGGACATTAC TATTGCGTGG
601 TAAGAAATTC ATCTTACTGC CTCAGAATTA AAATAAGTGC AAAATTTGTG GAGATGAGC
661 CTAACCTTATG TTATAATGCA CAAGCCATAT TTAAGCAGAA ACTACCCGTT GCAGGAGACG
721 GAGGACTTGT GTGCCCTTAT ATGGAGTTT TTAATAATGA AAATAATGAG TTACCTAAT
781 TACAGTGGTA TAAGGATTGC AAACCTCTAC TTCTTGACAA TATACACTTT AGTGGAGTCA
841 AAGATAGGCT CATCGTGATG AATGTGGCTG AAAAGCATAG AGGGAACAT ACTTGTCTATG
901 CATCCTACAC ATACTTGGGC AAGCAATATC CTATTACCCG GGTAATAGAA TTTATTACTC
961 TAGAGGAAA CAAACCACA AGGCCTGTGA TTGTGAGCCC AGCTAATGAG ACAATGGAAG
1021 TAGACTTGGG ATCCAGATA CAATTGATCT GTAATGTCAC CGGCCAGTT AGTGACATTG
1081 CTTACTGGAA GTGGAATGGG TCAGTAATTG ATGAAGATGA CCCAGTGCTA GGGGAAGACT
1141 ATTACAGTGT GGAAATCCT GCAAACAAA GAAGGAGTAC CCTCATCACA GTGCTTAATA
1201 TATCGGAAAT TGAAAGTAGA TTTATAAAC ATCCATTAC CTGTTTGGC AAGAATACAC
1261 ATGGTATAGA TGCAGCATAT ATCCAGTTAA TATATCCAGT CACTAATTTT CAGAAGCACA
1321 TGATTGGTAT ATGTGTCACG TTGACAGTCA TAATTGTGTG TTCTGTTTTC ATCTATAAAA
1381 TCTTCAAGAT TGACATTGTG CTTTGTGACA GGGATTCCTG CTATGATTTT CTCCCAATAA
1441 AAGCTTCAGA TGGAAAGACC TATGACGCAT ATATACTGTA TCCAAAGACT GTTGGGGAAG
1501 GGTCTACCTC TGA CTGTGAT ATTTTGTGT TTAAGTCTT GCCTGAGGTC TTGGAAAAC
1561 AGTGTGGATA TAAGCTGTTT ATTTATGGAA GGGATGACTA CGTTGGGGAA GACATTGTTG
1621 AGGTCAATTA TGAAACGTA AAGAAAAGCA GAAGACTGAT TATCATTTTA GTCAGAGAAA
1681 CATCAGGCTT CAGCTGGCTG GGTGGTTCAT CTGAAGAGCA AATAGCCATG TATAATGCTC
1741 TTGTTCAAGG TGAATTAATA GTTGCTCTGC TTGAGCTGGA GAAATCCAA GACTATGAGA
1801 AAATGCCAGA ATCGATTAAA TTCATTAAGC AGAAACATGG GGCTATCCGC TGGTCAGGGG
1861 ACTTTACACA GGGACCACAG TCTGCAAAGA CAAGGTTCTG GAAGAATGTC AGGTACCACA
1921 TGCCAGTCCA GCGACGGTCA CCTTCATCTA AACACCACTT ACTGTCACCA GCCACTAAGG
1981 AGAACTGCA AAGAGAGGCT CACGTGCCTC TCGGGTAGCA TGGAGAAGTT GCCAAGAGTT
2041 CTTTAGGTGC CTCTGTCTT ATGGCGTTGC AGGCCAGGTT ATGCCTCATG CTGACTTGCA
2101 GAGTTCATGG AATGTAATA TATCATCCTT TATCCCTGAG GTCACCAGGA ATCAGG

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(2) INFORMATION FOR SEQ ID NO:2520:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3464 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2520:

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1 GCCACCTGCT GCTGGGTCTC AGTCCTCCAC TTCCCGTGTC CTCTGGAAGT TGTCAGGAGC
61 AATGTTGCGC TTGTACGTGT TGGTAATGGG AGTTTCTGCC TTCACCCTTC AGCCTGCGGC
121 ACACACAGGG GCTGCCAGAA GCTGCCGGTT TCGTGGGAGG CATTACAAGC GGGAGTTCAG

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181 GCTGGAAGGG GAGCCTGTAG CCCTGAGGTG CCCCAGGTG CCCTACTGGT TGTGGGCTC
241 TGTGAGCCCC CGCATCAACC TGACATGGCA TAAAAATGAC TCTGCTAGGA CGTCCCAGG
301 AGAAGAAGAG ACACGGATGT GGGCCCAGGA CGGTGCTCTG TGGCTTCTGC CAGCCTTGCA
361 GGAGGACTCT GGCACCTACG TCTGCACTAC TAGAAATGCT TCTTACTGTG ACAAATATGC
421 CATTGAGCTC AGAGTTTTTG AGAATACAGA TGCTTTCCTG CCGTTCATCT CATACCCGCA
481 AATTTTAACC TTGTCAACCT CTGGGGTATT AGTATGCCCT GACCTGAGTG AATTCACCCG
541 TGACAAAACCT GACGTGAAGA TTCAATGGTA CAAGGATTCT CTCTTTTGG ATAAAGACAA
601 TGAGAAATTT CTAAGTGTA GGGGGACCAC TCACTTACTC GTACACGATG TGGCCCTGGA
661 AGATGCTGGC TATTACCGCT GTGTCTGAC ATTTGCCCAT GAAGGCCAGC AATACAACAT
721 CACTAGGAGT ATTGAGCTAC GCATCAAGAA AAAAAAAGAA GAGACCATTG CTGTGATCAT
781 TTCCCCCCTC AAGACCATAT CAGCTTCTCT GGGGTCAAGA CTGACAATCC CGTGTAAGGT
841 GTTCTGCGGA ACCGGCACAC CCTTAACCAC CATGCTGTGG TGGACGGCCA ATGACACCCA
901 CATAGAGAGC GCCTACCCGG GAGGCCGCGT GACCGAGGGG CCACGCCAGG AATATTGAGA
961 AAATAATGAG AACTACATTG AAGTGCCATT GATTTTGTAT CCTGTACAA GAGAGGATTT
1021 GCACATGGAT TTTAAATGTG TTGTCCATAA TACCCTGAGT TTTGAGACAC TACGCACCAC
1081 AGTCAAGGAA GCCTCCTCCA CGTCTCCTG GGGCATTGTG CTGGCCCCAC TTTCACTGGC
1141 CTTCTTGGTT TTGGGGGAA TATGGATGCA CAGACGGTGC AAACACAGAA CTGGAAAAGC
1201 AGATGGTCTG ACTGTGCTAT GGCCTCATCA TCAAGACTTT CAATCCTATC CCAAGTGAAA
1261 TAAATGGAAT GAAATAATTC AAACACAAAA AAAAAA AAAA
1 GCGCGAGCCG ACTCGAGCG CGCGGCGCGG CCGGAGGAG CCGAGCGCGC GGGGCGCGGC
61 GTGGGGGCGC CGGCTGCCCC GCGCGCCAG GGAGCGCGAG GAATGTGACA ATCGCGCGCC
121 CGCACCCTAG CACTCCTCGC TCGGCTCCTA GGGCTCTCGC CCTCTGAGCT GAGCCGGGTT
181 CCGCCCGGGC TGGGATCCCA TCACCCTCCA CGGCCGTCGG TCCAGGTAGA CGCACCCTCT
241 GAAGATGGTG ACTCCTCCT GAGAAGCTGG ACCCTTGGT AAAAGACAAG GCCTTCTCCA
301 AGAAGAATAT GAAAGTGTTA CTCAGACTTA TTTGTTTCAT AGCTCTACTG ATTTCTTCTC
361 TGGAGGCTGA TAAATGCAAG GAACGTGAAG AAAAAATAAT TTAGTGTCAT TCTGCAATG
421 AAATTGATGT TCGTCCCTGT CCTCTTAACC CAAATGAACA CAAAGGCACT ATAATTGGT
481 ATAAAGATGA CAGCAAGACA CCTGTATCTA CAGAACAAGC CTCCAGGATT CATCAACACA
541 AAGAGAACT TTGGTTTGT CCTGCTAAGG TGGAGGATTG AGGACATTAC TATTGCGTGG
601 TAAGAAATTC ATCTTACTGC CTCAGAATTA AAATAAGTGC AAAATTGTG GAGAATGAGC
661 CTAACCTTATG TTATAATGCA CAAGCCATAT TTAAGCAGAA ACTACCCGTT GCAGGAGACG
721 GAGGACTTGT GTGCCCTTAT ATGGAGTTT TTAATAATGA AAATAATGAG TTACCTAAAT
781 TACAGTGTA TAAGGATTGC AAACCTCTAC TTCTTGACAA TATACACTTT AGTGGAGTCA
841 AAGATAGGCT CATCGTGATG AATGTGGCTG AAAAGCATAG AGGGAACAT ACTTGTCATG
901 CATCCTACAC ATACTTGGGC AAGCAATATC CTATTACCCG GGTAATAGAA TTTATTACTC
961 TAGAGGAAA CAAACCCACA AGGCCTGTGA TTGTGAGCCC AGCTAATGAG ACAATGGAAG
1021 TAGACTTGGG ATCCAGATA CAATTGATCT GTAATGTCAC CGGCCAGTTG AGTGACATTG
1081 CTTACTGGAA GTGGAATGGG TCAGTAATTG ATGAAGATGA CCCAGTGCTA GGGGAAGACT
1141 ATTACAGTGT GGAAATCCT GCAAACAAAA GAAGGAGTAC CCTCATCACA GTGCTTAATA
1201 TATCGGAAAT TGAAAGTAGA TTTTATAAAC ATCCATTAC CTGTTTGGCC AAGAATACAC
1261 ATGGTATAGA TGCAGCATAT ATCCAGTTAA TATATCCAGT CACTAATTTC CAGAAGCACA
1321 TGATTGGTAT ATGTGTCACG TTGACAGTCA TAATTGTGTG TTCTGTTTTC ATCTATAAAA
1381 TCTTCAAGAT TGACATTGTG CTTTGGTACA GGGATTCTGT CTATGATTTT CTCCCAATAA
1441 AAGCTTCAGA TGAAAGACC TATGACGAT ATATACTGTA TCCAAAGACT GTTGGGGAAG
1501 GGTCTACCTC TGACTGTGAT ATTTTGTGT TTAAGTCTT CCCTGAGGTC TTGGAAAAAC
1561 AGTGTGGATA TAAGCTGTTT ATTTATGGAA GGGATGACTA CGTTGGGGAA GACATTGTTG
1621 AGGTCAATTA TGAACCGTA AAGAAAAGCA GAAGACTGAT TATCATTTTA GTCAGAGAAA
1681 CATCAGGCTT CAGCTGGCTG GGTGGTTCAT CTGAAGAGCA AATAGCCATG TATAATGCTC
1741 TTGTTTCAAG TGAATTAATA GTTGCTCTGC TTGAGCTGGA GAAATCCAA GACTATGAGA
1801 AAATGCCAGA ATCGATTAAA TTCATTAAGC AGAAACATGG GGCTATCCG TGGTCAGGGG
1861 ACTTTACACA GGGACCACAG TCTGCAAGA CAAGGTTCTG GAAGAATGTC AGGTACCACA
1921 TGCCAGTCCA GCGACGGTCA CCTTCATCTA AACACCAATT ACTGTCACCA GCCACTAAGG
1981 AGAACTGCA AAGAGAGGCT CACGTGCCTC TCGGGTAGCA TGGAGAAGTT GCCAAGAGTT
2041 CTTTAGGTGC CTCCTGTCTT ATGGCGTTGC AGGCCAGGTT ATGCCTCATG CTGACTTGCA
2101 GAGTTCATGG AATGTAATA TATCATCCTT TATCCCTGAG GTCACCAGGA ATCAGG

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(2) INFORMATION FOR SEQ ID NO:2521:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1185 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2521:

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1 GCTCAGGGCA CATGCCTCCC CTCCCAGGC CGCGGCCAG CTGACCCTCG GGGCTCCCCC
61 GGCAGCGGAC AGGGAAGGGT TAAAGCCCC CGGCTCCCTG CCCCCTGCCC TGGGGAACCC
121 CTGGCCCTGT GGGGACATGA ACTGTGTTTG CCGCCTGGTC CTGGTCGTG TGAGCCTGTG
181 CCAGATACGA GCTGTCGCCC CTGGGCCACC ACCTGGCCCC CCTCGAGTTT CCCAGACCC
241 TCGGGCCGAG CTGGACAGCA CCGTGCTCCT GACCCGCTCT CTCCTGGCGG ACACGCGGCA
301 GCTGGCTGCA CAGCTGAGGG ACAAAATCCC AGCTGACGGG GACCACAACC TGATTCCCT

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361 GCCCACCCTG GCCATGAGTG CGGGGGCACT GGGAGCTCTA CAGCTCCCAG GTGTGCTGAC
421 AAGGCTGCGA GCGGACCTAC TGTCCTACCT GCGGCACGTG CAGTGGCTGC GCCGGGCAGG
481 TGGCTCTTCC CTGAAGACCC TGGAGCCCAG GCTGGGCACC CTGCAGGCCC GACTGGACCG
541 GCTGCTGCGC CGGCTGCAAC TCCTGATGTC CCGCCTGGCC CTGCCCCAGC CACCCCCGGA
601 CCCGCCGGCG CCCCCGCTGG CCCCCCCTC CTCAGCCTGG GGGGGCATCA GGGCCGCCCA
661 CGGCATCCTG GGGGGGCTGC ACCTGACACT TGA CTGGGCC GTGAGGGGAC TGCTGCTGCT
721 GAAGACTCGG CTGTGACCCG GGGCCCAAAG CCACCACCGT CCTTCCAAAG CCAGATCTTA
781 TTTATTTATT TATTTCASTA CTGGGGGCGA AACAGCCAGG TGATCCCCC GCCATTATCT
841 CCCCTAGTT AGAGACAGTC CTTCCTGAG GCCTGGGGGA CATCTGTGCC TTATTTATAC
901 TTATTTATTT CAGGAGCAGG GGTGGGAGGC AGGTGGACTC CTGGGTCCCC GAGGAGGAGG
961 GGA CTGGGGT CCCGGATTCT TGGGTCTCCA AGAAGTCTGT CCACAGACTT CTGCCCTGGC
1021 TCTTCCCCAT CTAGGCCTGG GCAGGAACAT ATATTATTTA TTTAAGCAAT TACTTTTCAT
1081 GTTGGGGTGG GGACGGAGGG GAAAGGGGAG CTTGGGTTT TGTACAAAAA TGTGAGAAAC
1141 CTTTGTGAGA CAGAGAACAG GGAATTAAAT GTGTCATACA TATCC

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(2) INFORMATION FOR SEQ ID NO:2522:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6870 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2522:

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1 CAGCTGCGGC ATCCTCTGTC TCAGAGTCTT GGTGTCTCTG TTCCTTTCCC CTCGGGGTCT
61 CCCTGGGTCT CCCCAAGTCC CTCTGCTGT CTTCTCCCCG CTCTCTGATC TCTGACTCCC
121 AGAACCTCTC CCTCTGTCTC CAGGGCTGCC CCTCTGATCC TCTTTGCTTC TCTGGTGTGT
181 CTCTCTGGCT GCCTCCATCT CTGTGGATCT CCGTCTCCCT GTCTCTGTCT CAGTCTGTCC
241 TTCCTCTGT GTGTGTGTGT GTCTCTCTCT CTCTCTCTCC TTCCCTTCCA CTCCCTCTTC
301 CTCCTGCCCT CACCTCTCCA GGGCCCTGTC TTGTCCCTCC GTCCGGCCTT TCTCTGCCCT
361 TCCGTCTCTC TGCTTCCCCA TCTCTCTCTG CTAGTCTCTG CCAGCCGGAC CCCACCCAC
421 AGTCGGGCCC CAGCGCTTGA GCCTGAGTGT CTGCTCCGGC CCGTGGAGGT GGAGGGAGGT
481 GACGCCAATG ACCTCACCAG CCCCTCTCCG ACCACCCCCC CCTTTCCCTT TCAACTTTT
541 CCAACTTTTC CTTCCTGCTC CTCTCCGAG CGCGGCGGCG TGAGCCCTGC AAGGCAGCCG
601 CTCCGTCTGA ATGGAAGAGG CAGGCAGGGA GGGTGAGTCA GGATGTGTCA GGCCGGCCCT
661 CCCCTGCCGC CTGCCCCCGG CCGCCCCGCG CCAGGCCCCC TATATAACCC CCCAGGCGTC
721 CACACTCCCT CACTGCCGCG GGCCCTGCTG CTCAGGGCAC ATGCCTCCCC TCCCCAGCCG
781 CCGGCCACAG TGACCTCGG GGCTCCCCCG GCAGCGGACA GGAAGGGTT AAAGGCCCCC
841 GGCTCCCTGC CCCCTGCCCT GGGGAACCCC TGGCCCTGTG GGGACATGAA CTGTAAGTTG
901 GTTCATGGGG AGGGTGGAGG GGACAGGGAG GCAGGGAGGA GAGGGACCCA CGGCGGGGGT
961 GGGAGCAGAC CCCGCTGAGT CGCACAGAGA GGGACCCGGA GACAGGCAGC CGGGGAGGAG
1021 AGCAGCTTCG GAGACAGGAG GCGGCGGAGG AGATGGGAG AGAGAGACAC AGACAGGAGC
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1141 AGCGAGACGC GAGACCGAGC AGGGGACGGG ACGCAGGGAG TGGTGCCGGG AGGGAGGTGA
1201 CCCCCATCGA CCCAGGCCCG AGGGAGCCCG CGGGGACCGG GAGACTCCCT GGGATTCCGG
1261 CAGAGAGGCT CCGGAGGGAA ACTGAGGCAG GGTCCGCGGA GAGCGGAGCA AGCCAGGGAG
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2821 GCTGCGAGCG GACCTACTGT CCTACCTGCG GCACGTGCAG TGGCTGCGCC GGGCAGGTGG
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5161 GTGACCCGGG GCCCAAAGCC ACCACCGTCC TTCCAAAGCC AGATCTTATT TATTTATTTA
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6361 GGATATAGAA AGATATCTCT ACATTGGCCA GGCATGGTGG CTACGCCTG TAATCCTGGC
6421 ACTTTGGGAG GACGAAGCGA GTGGATCACT GAAGTCCAAG AGTTTGAGAC CGGCCTGCCA
6481 GACATGGCAA AACCCTGTCT CAAAAAGAA AGAATGATGT CCTGACATGA AACAGCAGGC
6541 TACAAAACCA CTGCATGCTG TGATCCCAAT TTTGTGTTTT TCTTCTATA TATGGATTAA
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6661 GAGAGAGGTG GGATTGTGGG TGACTTTTAA TGTGTATGAT TGTCTGTATT TTACAGAATT
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6781 ATAACAGAAT ATCAGCCTCC TCCTCTCCAA AAATAAGCCC TCAGGAGGGG ACAAAGTTGA
6841 CCGCTGATTG AGCCTGTGAG GGCTGTGCAC

(2) INFORMATION FOR SEQ ID NO:2523:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 8055 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2523:

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121 CTGGCCCTGT GGGGACATGA ACTGTGTTTG CCGCTGGTTC CTGGTCGTGC TGAGCCTGTG
181 GCCAGATACA GCTGTCGCCC CTGGGCCACC ACCTGGCCCC CCTCGAGTTT CCCCAGACCC
241 TCGGGCCGAG CTGGACAGCA CCGTGCTCCT GACCCGCTCT CTCCTGSCGG ACACGCGGCA
301 GCTGGCTGCA CAGCTGAGGG ACAAATTCCT AGCTGACGGG GACCACAACC TGGATTCCCT
361 GCGCACCTTG GCCATGAGTG CGGGGGCACT GGGAGCTCTA CAGTCCCAG GTGTGCTGAC
421 AAGGCTGCGA GCGGACCTAC TGTCTACCT GCGGCACGTG CAGTGGCTGC GCCGGGCAGG
481 TGGCTCTTCC CTGAAGACCC TGGAGCCCGA GCTGGGCACC CTGCAGGCCG GAGTGGACCG
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661 CGCCATCCTG GGGGGGCTGC ACCTGACACT TGAAGGGGAC GTGAGGGGAC TGCTGCTGCT
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2401 CTGGTAGGAG AACTGGGCT GGGGCCAGCA CAGGAGTGAG AGGCAGAGAG GAACGGAGAG
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6541 TACAAAACCA CTGCATGCTG TGATCCCAAT TTTGTGTTTT TCTTTCTATA TATGGATTAA
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6661 GAGAGAGGTG GGATTGTGGG TGACTTTTAA TGTGTATGAT TGTCTGTATT TTACAGAATT
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6781 ATAACAGAAT ATCAGCCTCC TCCTCTCCAA AAATAAGCCC TCAGGAGGGG ACAAAGTTGA
6841 CCGCTGATTG AGCCTGTCAG GGCTGTGCAC

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(2) INFORMATION FOR SEQ ID NO:2524:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1681 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2524:

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301 cctggcccag gcagacagca ctgatgaggg cacctacatc tgccagaccg tggatgggtg
361 acttgggggc acagtgaccg tgcagctggg ctaccctcca gcccgccctg ttgtctcctg
421 ccaagcagcc gactatgaga acttctcttg cacttgaggt cccagccaga tcagcggttt
481 acccaccgcg tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
541 gaggagtcga tccacagggc cctggccatg cccacaggat cccctagggg ctgcccgtg
601 tgttgtccac ggggctgagt tctggagcca gtaccggatt aatgtgactg aggtgaaccc
661 actgggtgcc agcacacgac tgctggatgt gagcttgacg agcatcttgc gccctgacct
721 accccagggc ctgcggttag agtcagtacc aggttaccoc cgacgcctgc gagccagctg
781 gacataccct gcctcctggc cgtgccagcc ccacttcctg ctcaagttcc gtttgagta
841 ccgtccggcg cagcatccag cctggctcac ggtggagcca gctggactgg agggagtgat
901 cacagatgct gtggctgggc tgccccatgc tgtacgagtc agtgccggg actttctaga
961 tgctggcacc tggagcacct ggagcccgga ggcctgggga actccgagca ctgggacct
1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagaggtgg agcctcaggt
1081 ggacagccct gtcctccaa ggcctccct ccaaccacac cctcggtac ttgatcacag
1141 ggactctgtg gagcaggtag ctgtgctggc gtctttggga atcctttctt tctgggact
1201 ggtggctggg gccctggcac tgggctctg gctgaggctg agacgggggt ggaaggatgg
1261 atccccaaag cctgggttct tggcctcagt gattccagtg gacaggcgct caggagctcc
1321 aaacctgtag aggaccagc agggcttcgg cagattccac ctataattct gtcttgctgg
1381 tgtggataga aaccaggcag gacagtagat ccctatgggt ggtctcagc tggagttct
1441 gtttgagacc catttctgtg agaccctgta tttcaaattt gcagctgaaa ggtgcttgta
1501 cctctgattt caccacagag ttggagttct gctcaaggaa cgtgtgtaat gtgtacatct
1561 gtgtccatgt gtgaccatgt gtctgtgaag gccagggaac atgtattcct ctgcatgcat
1621 gtatgtaggt gcctgggagt gtgtgtggtc cttgctctgg ccctttccct tgcagggttg
1681 tgcaggtgtg aataaa

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(2) INFORMATION FOR SEQ ID NO:2525:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1681 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2525:

```

1 ggaagatgag cagcagctgc tcagggtgta gcagggtcct ggtggccgtg gctacagccc
61 tgggtgtctg ctcctcccc tgcctccagg cctggggccc cccaggggtc cagtatgggc
121 agccaggcag gtccgtgaag ctgtgtgtgc ctggagtga cgcgggggac ccagtgtcct
181 ggtttcggga tggggagcca aagctgtctc agggacctga ctctgggcta gggcatgaac
241 tggctctggc ccaggcagac agcactgatg agggcaccta catctgccag accctggatg
301 gtgcacttgg gggcacagtg accctgcagc tgggtacctc tccagccgcg cctgttgtct
361 cctgccaaag agccgactat gagaacttct cttgacttgg gactcccagc cagatcagcg
421 gtttaccac ccgtacctc acctcctaca ggaagaagac agtcctagga gctgatagcc
481 agaggaggag tccatccaca gggcctggc catgcccaca ggatccccta ggggctgccc
541 gctgtgttgt ccacggggct gaggttctga gccagtaccg gattaatgtg actgaggtga
601 acccactggg tgccagcaca cgctgtctgg atgtgagctt gcagagcatc ttgcgccctg
661 acccacccca gggcctgccc gtagagtcag taccaggtta ccccgacgc ctgagagcca
721 gctggacata ccctgcctcc tggcgtgcc agccccaact cctgctcaag ttccgtttgc
781 agtaccgtcc ggccagcat ccagcctggt ccacggtgga gccagctgga ctggaggagg
841 tgatcacaga tgctgtggct gggtgcccc atgctgtacg agtcagtgcc cgggactttc
901 tagatgctgg cacctggagc acctggagcc cggaggcctg ggaactccg agcactggga
961 ccataccaaa ggagatacca gcatggggcc agctacacac gcagccagag gtggagcctc
1021 aggtggacag ccctgtcct ccaaggccct ccctccaacc acaccctcgg ctacttgatc

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1081 acaggggactc tgtggagcag gtagctgtgc tggcgtcttt gggaaatcctt tctttcctgg
 1141 gactgggtggc tggggccctg gactggggc tctggctgag gctgagacgg ggtgggaagg
 1201 atggatcccc aaagcctggg ttcttggcct cagtgtattcc agtggacagg cgtccaggag
 1261 ctccaaacct gtagaggacc caggagggtc tcggcagatt ccacctataa ttctgtcttg
 1321 ctgggtgtgga tagaaaccag gcaggacagt agatccctat ggttggatct cagctggaag
 1381 ttctgttttg agcccatttc tgtgagaccc tgtatttcaa atttgcagct gaaagggtgt
 1441 tctacctctg atttcacccc agagttggag ttctgtctca ggaacgtgtg taatgtgtac
 1501 atctgtgtcc atgtgtgacc atgtgtctgt gaggcaggga acatgtattc tctgcatgca
 1561 tgtatgtagg tgcctgggga gtgtgtgtgg gtccttggct cttggccttt ccttgacagg
 1621 gttgtgcagg tgtgaataaa gagaataagg aagttcttgg agattatact cagaaaaaaa
 1681 aa

(2) INFORMATION FOR SEQ ID NO:2526:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 361 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2526:

1 tctgtggagc aggtagctgt gctggcgtct ttgggaatcc tttctttcct gggactgggtg
 61 gctggggccc tggcactggg gctctggtaa gtgactgcca ttggtccctc agcctctgat
 121 cctcacacat gctctgatgc ccatagacca cattcatctc cacccttcat gactgcctgc
 181 tgaacctgtc tgattctgga actacctccc catacctcca tccccatgc cccacttgat
 241 tttaactgat tcctctcctg accctttact aataaacctt ttggcggaga ctgagataac
 301 ccacattgtt ggagagacag ctgcctttct atgccccagg ctgaggctga gacggggtgg
 361 gaaggatgga tccccaaagc ctgggttctt ggcctcagtg attccagtg aca

(2) INFORMATION FOR SEQ ID NO:2527:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: - base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2527:

1 gctgtagctg gtgagaggaa gtcctagagg ctatggacac tctgctgctg ggatcaccca
 61 gatgagcagc agctgtcag ggctgagcag ggtcctgggt gccgtggcta cagccctggg
 121 gtctgcctcc tccccctgcc cccaggcctg gggcccccca ggggtccagt atgggcagcc
 181 agggaggtcc gtgaagctgt gttgtcctgg agtgactgcc ggggaccagc tgtcctgggt
 241 tcgggatggg gagccaaagc tgctccaggg acctgactct gggctagggc atgaactggg
 301 cctggcccag gcagacagca ctgatgagg cacctacatc tgccagaccc tggatgggtg
 361 acttgggggc acagtgaccc tgcagctggg ctaccctcca gcccggcctg ttgtctcctg
 421 ccaagcagcc gactatgaga acttctcttg cacttggagt cccagccaga tcagcggttt
 481 acccaccgc tacctcacct cctacaggaa gaagacagtc ctaggagctg atagccagag
 541 gaggagtcca tccacagggc cctggccatg cccacaggat cccctagggg ctgcccgtg
 601 tgttgtccac ggggctgagt tctggagcca gtaccggatt aatgtgactg aggtgaaccc
 661 actgggtgcc agcacacgcc tgctggatgt gagcttgcag agcatcttgc gccctgaccc
 721 accccagggc ctgctggtag agtcagtacc aggttaccac cgacgcctgc gagccagctg
 781 gacataccct gcctcctggc cgtgccagcc ccacttctct ctcaagttcc gtttgcagta
 841 ccgtccggcg cagcatccag cctgttccac ggtggagcca gctggactgg aggaggtgat
 901 cacagatgct tggtctgggc tgccccatgc tgtacgagtc agtgcccggg actttctaga
 961 tgctggcacc tggagcacct ggagcccagg ggcctgggga actccgagca ctgggaccat
 1021 accaaaggag ataccagcat ggggccagct acacacgcag ccagaggtgg agcctcaggt
 1081 ggacagccct gctcctccaa ggccctccct ccaaccacac cctcggtac ttgatcacag
 1141 ggactctgtg gagcaggtag ctgtgtgtgg gtctttggga atccttctt tcttgggact
 1201 ggtggctggg gccctggcac tggggctctg gctgaggctg agacggggtg ggaaggatgg
 1261 atccccaaag cctgggttct tggcctcagt gattccagtg gacaggcgtc caggagctcc
 1321 aaacctgtag aggacccagg agggcttcgg cagattccac ctataattct gtcttgttgg
 1381 tgtggataga aaccaggcag gacagtagat ccctatggtt ggatctcagc tggaaagtct
 1441 gtttggagcc catttctgtg agaccctgta tttcaaattt gcagctgaaa ggtgcttcta
 1501 cctctgattt caccacagag ttggagtctt gctcaaggaa cgtgtgtaat gtgtacatct
 1561 gtgtccatgt gtgacatgt gtctgtgaag gccagggaac atgtattcct ctgcatgcat
 1621 gtatgtaggg gcctgggagt gtgtgtggtc cttgtctctg ccccttccct tgcagggttg
 1681 tgcaggtgtg aataaa
 1 ggaagatgag cagcagctgc tcagggtcta gcagggtcct ggtggccgtg gctacagccc
 61 tgggtgtctgc ctctccccc tgccccagg cctggggccc cccaggggtc cagtatgggc
 121 agccaggcag gtccgtgaag ctgtgtgtgc ctggagtgc tgccggggac ccagtgtcct
 181 ggtttcggga tggggagcca aagctgctcc agggaccta ctctgggcta gggcatgaac
 241 tggctcctgg ccaggcagac agcactgatg agggcaccta catctgcccag accctggatg
 301 gtgacttgg gggcacagt accctgcagc tgggctaccc tccagcccgc cctgttgtct


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361 cctgccaaagc agccgactat gagaacttct cttgcacttg gagtcccagc cagatcagcg
421 gtttaccacac ccgctacctc acctcctaca ggaagaagac agtcctagga gctgatagcc
481 agaggaggag tccatccaca gggccctggc catgcccaca ggatccccta ggggctgccc
541 gctgtgttgt ccacggggct gagttctgga gccagtaccg gattaatgtg actgagggtg
601 acccactggg tgccagcaca cgcctgctgg atgtgagctt gcagagcatc ttgcgccctg
661 acccaccacca gggcctgcgg gtagagtcag taccaggtta ccccgacgc ctgcgagcca
721 gctggacata ccctgcctcc tggcctggcc agccccactt cctgctcaag ttccgtttgc
781 agtaccgtcc ggcgcagcat ccagcctggg ccacggtgga gccagctgga ctggaggagg
841 tgatcacaga tgctgtggct gggctgcccc atgctgtacg agtcagtgcc cgggactttc
901 tagatgctgg cacctggagc acctggagcc cggaggcctg gggaactccg agcactggga
961 ccataccaaa ggagatacca gcattggggc agctacacac gcagccagag gtggagcctc
1021 aggtggacag ccctgctcct ccaaggccct ccctccaacc acaccctcgg ctacttgatc
1081 acagggaactc tgtggagcag gtagctgtgc tggcgtcttt gggaatcctt tctttcctgg
1141 gactgggtggc tggggccctg gcactggggc tctggctgag gctgagacgg ggtgggaagg
1201 atggatcccc aaagcctggg ttcttggcct cagtgtattcc agtggacagg cgtccaggag
1261 ctccaaacct gtagaggacc caggagggtc tcggcagatt ccacctataa ttctgtcttg
1321 ctggtgtgga tagaaaccag gcaggacagt agatccctat ggttggatct cagctggaag
1381 ttctgtttgg agcccatttc tgtgagacc ttattttcaa atttcagct gaaaggtgct
1441 tctacctctg atttcacccc agagtggag ttctgtcaa ggaacgtgtg taatgtgtac
1501 atctgtgtcc atgtgtgacc atgtgtctgt gaggcaggga acatgtattc tctgcatgca
1561 tgtatgtagg tgccctggga gtgtgtgtgg gtccttggct cttggccttt ccttgcaggg
1621 gttgtgcagg tgtgaataaa gagaataagg aagttcttgg agattatact cagaaaaaaa
1681 aa
1 tctgtggagc aggtagctgt gctggcgtct ttgggaatcc tttctttcct gggactgggtg
61 gctggggccc tggcactggg gctctggtaa gtgactgcca ttggtccctc agcctctgat
121 cctcacacat gctctgatgc ccatagacca cattcatctc caccctcat gactgcctgc
181 tgaacctgtc tgattctgga actacctccc catacctcca tcccctatgc cccacttgat
241 ttttaactgat tctctcctg accctttact aataaacct ttggcggaga ctgagataac
301 ccacattggt ggagagacag ctgcctttct atgccccagg ctgaggctga gacgggggtg
361 gaaggatgga tccccaaagc ctgggttctt ggcctcagtg attccagtgg aca

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(2) INFORMATION FOR SEQ ID NO:2528

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 901 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2528:

```

1 ctcaactca ataagcattt taagtattct aatcttagta tttctctagc tgacatgtaa
61 gaagcaatct atcttattgt atgcaattag ctcatgtgt ggataaaaag gtaaaacat
121 tctgaaacag gaaaccaata cacttcctgt ttaatcaaca aatctaaaca ttattcttt
181 tcatctgttt actcttgctc ttgtccacca caatatgcta ttcacatgtt cagtgtagtt
241 ttatgacaaa gaaaattttc tgagttactt ttgtatcccc acccccttaa agaaaggagg
301 aaaaactggt tcatacagaa ggcgttaatt gcataaatta gagctatcac ctaagtgtgg
361 gctaattgtaa caaagaggga tttcacctac atccattcag tcagtctttg ggggtttaaa
421 gaaattccaa agagtcattc gaagaggaaa aatgaaggta atgttttttc agacaggtaa
481 agtctttgaa aatatgtgta atatgtaaaa cattttgaca ccccataat atttttccag
541 aattaacagt ataaattgca tctcttgctc aagagttccc tatcactctc ttaatacatt
601 actcacagta acctcaactc ctgccacaat gtacaggatg caactcctgt cttgcattgc
661 actaagtctt gcacttgta caaacagtgc acctacttca agttctacaa agaaaacaca
721 gctacaactg gagcatttac ttctggattt acagatgatt ttgaatggaa ttaatgtaag
781 tatatttctt ttcttactaa aattattaca tttagtaatc tagctggaga tcatttctta
841 taacaatgca ttatactttc ttagaattac aagaatccca aactcaccag gatgtcaca
901 ttttaagttt acatgcccac gaaggtaagt acaatatttt

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(2) INFORMATION FOR SEQ ID NO:2529:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9301 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2529:

```

1 gaattccctt ttcctagtca aagaaagggg tgacagacag cacctggaaa atcgtgtcac
61 tcccacccta atactgcgct ttccaatgg tcttagcaaa cagcacacca agagattata
121 tccagcacct ggctcagagg gtccatgccc caggagcct cactcactgc tagcacagca
181 gtctgagatc aaactgcaag gtggcagtga ggctgggaga ggggtgtgca ccattgccga
241 ggcttgagta ggtaaacaaa gcagctggga agctcgaaact ggggtggagcc cactgcagct
301 caaggaggcc tgctgcctc ttagactcc acctccgggg gcagggcata gccaaacaaa
361 aggcagcaga aacctctgca gacttaaatg tccctgtctg acagcttgga agagagtagt

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421 ggttctccca gcatgcagct tgagatctga gaatggacag actgcctcct caagtgggtc
481 cctgaccccc gagtaacctt actgggaggg accccaagta ggggcagact gacacctcac
541 atggctgggt actcctctga gaaaaactt ccagaggaaac gatcaggcag caacatttgc
601 tgttcaccaa tatccactgt tctgcagcct cctgtgctaa taccaggcca aatgggtctg
661 gagaggacct ccagcaagct ccaacagacc tacagctgag ggtcctgact gttagaagga
721 aaactaacia acagaaagga catccacacc aaaaccctat ctgtacggca ccatcatcaa
781 agaccaaagg tagataaaac cacaaagatg gggaaaaaaa cacagcagaa aaactggtaa
841 ctctaaaaat tagagcgctt ctctcctcc aaaggaaacg agctcctcac cagcaatgga
901 accaagctgg acagagaatg actttgacga gttgagagaa gaaggcttca gatgatcaaa
961 ctactctgag ctaaaggagg aagttcgaac ccacggcaaa gaagttaaaa accttgaaaa
1021 aaattagatg aatggctaac tagaataacc aatgcagaga agtccttaaa ggacctgatg
1081 gagctgaaaa ccatggcaca agaactacat gacaaatgca caagcctcag tagctgatc
1141 gatcaactgg aagaaagggt atcagtgatg gaagatcaaa tgaatgaaat gaagcaagaa
1201 gagaagttaa gagaaaaaag aaaaaaaga aatgaacaaa gcctccaaga aatatgggac
1261 tatgtgaaaa gaccaaatct acgtctgatt ggtgtacctg aaagtgatgg ggagaatgga
1321 accaagctgg aaaacactct gcaggatatt atccaagaga acttcccca tctagcaagg
1381 caggctgaca ttcaaattca ggaaatacag agaacgccac aaatataatc ctcgagaaga
1441 gcaactccaa gacacataat tgtagattc actaaagttg aaatgaagga aaaaatgtta
1501 agggcagcca gagagaaaag tcagcttacc cacaaggaa agcccatcag attaacagct
1561 gatctctcgg cagaaactct acaagccaga agagagtggg ggccaatatt caacattctt
1621 aaagaaaaga attttcaacc cagaatttca tatccagcca aactatgctt cataagtga
1681 ggagaaataa aatatagaca agtgaacgat gaaagatttt gtcaccacca ggcctgcctt
1741 acaagagctc ctgaagggaag cactaaacat ggaaaggaa aaccggtacc agccactgca
1801 aaaacatgcc aaattgtaaa caccattgag gccaggaaga aactgcata actaacgagc
1861 aaaataacca gctaactca tcatgacagg atcaaatca cacataacaa tattaacctt
1921 aaatgtaaat aggctaaatg ctccaattaa aagacacaga ctggcaaaact ggataaagag
1981 tcaagaccca tcagtgtgct gtattcagga aacccatctc acgtgcagag acacacatag
2041 gctcaaaaata aagggatgga ggaagatcta ccaaacaaac ggaaaacaaa aaaaggcagg
2101 ggttgcaatc ctagtctctg ataaaacaga ctttaaacca acaaaagatca aaagagacac
2161 agaaggccat tacataatgg taaagggatc aattcaacaa gaagagttaa ctatcctaaa
2221 tatatatgca ccaatacag gagcacctag attcataaag caagtcctta gagacctaca
2281 aagagactta gactcccaca caataataat gggagacttt aacaccccatt tgtcaacatt
2341 agacagatca atgagacaga aaattaacaa ggatatccag gaattgaact caactctgca
2401 ccaagcggac ctaatagaca tctacagaac tctccacccc aaatcaacag aatatacatt
2461 cttttcggca ccacaccaca ccgattccaa aattgaacac atagtggaa gtaagcact
2521 cctcagcaaa tgtaaaagaa cagaaagtac aacaaactgt ctctcagacc acagtgcaat
2581 caaactaaaa ctcaggatta agaaactcac tcaaaaccgc tcaactacat ggaaactgaa
2641 caacctgctc ctgaatgact actgggtaca taacgaaatg aaggcagaag taaagatgtt
2701 ctttgaaacc aacgagaaca aagacacaac ataccagaat ctctgggaca cattcaaagc
2761 agtgtgtaga ggaaaattta tagcactaaa tgcccacaag agaaagcagg aaagatctaa
2821 aattgacagc ctaacatcac aattaaaaga actagagaaa caagagcaaa cacattcaaa
2881 agctagcaga aggcaagaaa taactacaat cagagcagaa ctgaaggaga tagagacata
2941 caaaaaaccc ttcaaaaaat caatgaatcc aggagctggt tttttgaaaa gatcaacaaa
3001 attgatagac cactagcaaa actaatagag aagagagaag aatcaaatag acacaataaa
3061 aaatgataaa cgggatatca ccactgatcc cacagaaata caaactacca tcaagaata
3121 ctataaacac ctctatgcaa ataaactaga aaatctagaa gaaatggata aattcctgca
3181 cacatacacc ctcccaagac taaaccagga agaagctgaa tctctgaata gaccaataac
3241 aggctctgaa attgaggcaa caattaacac cttaccaacc aataaaagtc caggaccaga
3301 tggattcaca gccaaattct accagaggta caaggaggag ctggtacgat tcttctgaa
3361 actattccaa tcaatagaaa aagagggaaat cctccctaac tcattttatg aggccagcat
3421 catcctgata ccaaaagcctg gcagagacac aacaaaaaaa gagaatttca gaccaatc
3481 cctgatgaac atcgatgcaa aaatttttaa taaaatactg gcaactgaa tccagcagca
3541 catcacaag cttatccacc atgatcaagc tggcttcatt cctgggatgc aaggctggtt
3601 caacatacgg aaaatcaata aatgtaatcc agcatataaa cagaaccaac aacacacaac
3661 acatgattat ctcaacagat gcagaaaagg cctttgacaa aattcaacag cccttcatgc
3721 taaaaactct caataaatta ggtactgatg ggacgtatct caaaataata agcgctatct
3781 atgaccaacc cacagccaat atcatactgg atgggcaaaa actggaagca ttcccttga
3841 aaactggcac aagacagga tgccctctct caccactcct attcaacaca gtgttcgaag
3901 ttctggcagg gcaatcaggc agggagaaaga aataaagggt attcaattag gaaaagagga
3961 ggtcaaatg tccctgtttg cagatgacat gattgtatat atagaaaacc ccattgtctc
4021 agcccaaaat ctcttaagc tgataagcaa cttcagcaaa gtctcaggat caaaatcaat
4081 gtgcaaaaat cacaagcatt cttatacacc aataacagac aaacagagag ccaaatcatg
4141 agtgaactcc cattcacaat tgcttcaaag agaataaaat acctaggaat ccaactcaca
4201 agggatgtga gagacctctt caaggagaac tataaaccac tgctcaatga aatgagagga
4261 tacagataaa tggaagaaca ttccatgctc atgggtagga agaatacaata tcgtgaaaat
4321 ggccatactg cccaaggtaa ttttatagat tcaatgccat ccccatcaag ctaccaatga
4381 ctttcttcac agaattggaa aaaactactt taaagttcat atggaaccaaaa aaagagccc
4441 gcattgcca gtcaatccta agccaaaaga acaaagctag aggcatacaca ctacctgact

4501 tcaaaactata ctacaaggct acagtaacca aaacagcatg gtactggtac caaagcagag
4561 atatatagacca atggaacaaa acagtgcctt cagaaataat actgcatatc tacaaccatc
4621 tgatcttttga caaacctgac aaaaacaagc aatggggaaa ggattcccta tttataaatt
4681 ggtgctggga aaactggcta gccatatgta gaaagctgaa attggtatccc ttctttacac
4741 cttgtacaaa aattaattca agatggatta cagacttaaa tgtagacctt aaaaccataa
4801 aaaccctaga agaaaaccta ggcaatacca ttcaggacat aggcattggg aagaacttca
4861 tgtctagaac accaaaagta atggcaacaa aagccaaaat tgacaaatgg gtctaattaa
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5041 atatccagaa tctacaatga actcaacaaa atttacaaga aaaaaacaaa tttacaagaa
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7861 tacatatctt ccctattaca aatcaggttc tttgaaaaaa tacaatgggt aagagagttg
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8281 gactctctgt gagacaggat ctccctcaagt gtcccaggt taaattagaa gtatatatcc
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8521 gagaacatg gactggttta cacataacac atacaaagtc tattataaaa ctagcatcag

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8581 tacccttgaa tgcacacctt tttctgagta tttacaatc gcacccttta aaaaatgtac
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9181 ggtaaagtct tggaaaatat gtgtaatatg taaaacattt tgacaccccc ataattttt
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(2) INFORMATION FOR SEQ ID NO:2530:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5701 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2530:

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121 ttgtatcccc acccccttaa agaaaggagg aaaaactggt tcatacagaa ggcgttaatt
181 gcatgaatta gagctatcac ctaagtgtgg gctaattgaa caaaggaggga tttcacctac
241 atccattcag tcagtccttg ggggtttaaa gaattccaaa gagtcacag aagaggaaaaa
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361 attttgacac ccccataata tttttccaga attaacagta taaattgcat ctcttggtca
421 agagttccct atcactctct ttaataccta ctcacagtaa cctcaactcc tgccacaatg
481 tacaggatgc aactcctgtc ttgcattgca ctaagtcttg cacttgctac aaacagtga
541 cctacttcaa gttctacaaa gaaaacacag ctacaactgg agcatttact gctggattta
601 cagatgattt tgaatggaat taatgtaagt atatttcctt tcttactaaa attattacat
661 ttagtaactc agctggagat catttcttaa taacaatgca ttatactttc ttagaattac
721 aagaatccca aactcaccag gatgctcaca ttaagtgtt acatgcccca gaaggtaagt
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1441 gataaaaatt tcaactgagaa atacaaagta aaattttgga ctttatcttt ttaccaatag
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2521 aaaagtaaaa ttaagacat atttaaaaat gtgtcttgct caaggctata ttgagagcca
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2821 acattttgca aagccaaatt aagctaaaac cagttagtca actatcactt aacgctagtc

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(2) INFORMATION FOR SEQ ID NO:2531:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5521 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2531:

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541 tcccaaactc accaggatgc tcacatttaa gttttacatg cccaagaagg taagtacaat
601 attttatgtt caatttctgt ttttaataaaa ttcaaagtaa tatgaaaatt tgcacagatg
661 ggactaatag cagctcatct gaggtaaaga gtaactttta tttgtttttt tgaaaaccca
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5281 aagcctggat atttgttatt ttggaaacag cacagagtaa gcatttaaat atttcttagt
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5401 atatgtagaa cagagatgta gacttctcaa aagcccttgc tttgtccttt caagggctga
5461 tcagaccctt agttctggca tctcttagca gattatattt tcttcttct taaaatgcc
5521 aacacaaaca ctctgaaac tcttcataga tttgggtgtg c

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(2) INFORMATION FOR SEQ ID NO:2532:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 841 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2532:

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1 ccccataata ttttccaga attaacagta taaattgcat ctcttggtca agagttccct
61 atcactctct ttaataccta ctcacagtaa cctcaactcc tgccacaatg tacaggatgc
121 aactcctgtc ttgcattgca ctaagtcttg cacttgctac aaacagtga cctacttcaa
181 gttctacaaa gaaaacacag ctacaactgg agcatttact gctggattta cagatgattt
241 tgaatggaat taataattac aagaatccca aactcaccag gatgctcaca tttaagtttt
301 acatgcccaa gaaggccaca gaactgaac atcttcagt tctagaagaa gaactcaaac
361 ctctggagga agtgctaaat ttagctcaaa gcaaaaactt tcacttaaga cccagggact
421 taatcagcaa tatcaacgta atagttctgg aactaaagg atctgaaaca acattcatgt
481 gtgaatatgc tgatgagaca gcaaccattg tagaatttct gaacagatgg attacctttt
541 gtcaaagcat catctcaaca ctgacttgat aattaagtgc ttcccactta aaacatatca
601 ggccttctat ttatttaaat atttaaat tttattttatt gttgaatgta tggtttgcta
661 cctattgtaa ctattattct taatcttaaa actataaata tggatcttt atgattcttt
721 ttgtaagccc taggggctct aaaatggtt cacttattta tcccaaaata tttattatta
781 tgttgaatgt taaatatagt atctatgtag attggttagt aaaactattt aataaattg
841 ataa

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(2) INFORMATION FOR SEQ ID NO:2533:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22265 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2533:

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1 cttcaactca ataagcattt taagtattct aatcttagta tttctctagc tgacatgtaa
61 gaagcaatct atcttattgt atgcaattag ctcatgtgt ggataaaaag gtaaaacct
121 tctgaaacag gaaaccaata cacttcctgt ttaatcaaca aatctaaaca tttattcttt
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421 gaaattccaa agagtcata gaagaggaaa aatgaaggta atgtttttc agacaggtaa
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481 cctgaccccc gagtaacct actgggaggc accccaagta ggggcagact gacacctcac
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601 tgttcaccaa tatccactgt tctgcagcct cctgtgctaa taccaggga aatgggtctg
661 gagaggacct ccagcaagct ccaacagacc tacagctgag ggtcctgact gttagaagga
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841 ataa

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(2) INFORMATION FOR SEQ ID NO:2534:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 901 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2534:

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1 aggccagtt gaaaccagg agttgctctc ctttctctc ccttgacctc acccctcaga
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(2) INFORMATION FOR SEQ ID NO:2535:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 421 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2535:

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361 ctgcacatat aaggcgggag gttgttgcca actcttcaga gccccacgaa ggaccagaac
421 aagacagagt gcctcctgccc gatccaaaca tg

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(2) INFORMATION FOR SEQ ID NO:2536:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2701 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2536:

```

1 gatccaggag accagtctcc tagtaccagg tctgcttgcc taaacttga gtataagagc
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661 tcaaggccca cctttgtccc taggtcccta agcctaatta tctgagttat cagaaggatg
721 gcctagtgtt tgcagtcata tctccatcaa gggttctgtc ctctagatgt gggccttagc
781 gcattgcctt actgcactga gactagacca gtgaaggagt gagctgaact ccataccac
841 ctgcaaggaa taagggtcaa tgggaaggct gcctagaggg agagggagct ctagtacca
901 gcgccagag gactagccca cccatggacg tttaaccatg tgccagaatg cctaccatgt
961 tcaagtttgc cccagtgacc ctggtggccc actaatagtg gtggcccaca gtcaggggca
1021 gattttgtaca agggatggta ggaagaggtt ccagtgcaca gaaaccccaa gctggctcgg
1081 agccaggcta ctctctccca ccacctgttt ccactcggtc catctctatg acaaaggaag
1141 aagatggcct ttgaataagc agtctttctt cccatgtcga taattttgag tactagaaaa
1201 cgatgaataa gtctgtggtt tgctatggag gttccatgtc agataaagct gcttctgatg
1261 cctgcccttc cccccatgcc ctgcctgggg cccgccccgc cctctcgat gaatatatat
1321 aaggtgaagg ctctgtggc ttcttcagaa ctctttggag gaccagaacg agacaatggt
1381 tcttgccagc tctaccacca gcctcctctg tatgtctctc ccgctcctga tgctcttcca
1441 ccagggactc cagatttcag acaggggctc agatgcccac catttactca ggacgttggg
1501 ttgcaggact attgccttgg agattttggt gaagctccca gtgagtagct ggctgaggtt
1561 agcctgggca ggctggcttc aacaggtgcc tcggaccaat aagcctcatg attctttctt
1621 ttagtatcct caggtatctg gactcaataa tagtgacgac aaagccaatg tgagggttaag
1681 agccctgtct ttgggcattc ttgggttcca tctgtctcct gcctgggtga ctttagccat
1741 gtcactgcac cctgctttgc ttccgttttc acatctatct cagtgggggtt attaaggaaa
1801 tcatcagatg actctctgag cctcagtctg tgccacagcc agctgcaata atgaagttg
1861 catttttagga gatacaatgg agagagaact gtgagtgaac cctgccacag gcctctggct
1921 ccactttcag tggggatgcc atggggatgc catggaccag tgaacgagtt gccttctgtg
1981 actgtgtctt ttgcttttct tctcctccca aaactgagct tgtgttctcc acttcacca
2041 gcctaagaca ttaccatttg cagttatttt cccagctcta gttagatata atggttctgt
2101 ttctgtttta ttgtttgca agcgtgctga gtgtctacgt ttccctctcc tagggacatg
2161 atgaagctct taggattttc ttctagatat ctagaagttc ttaattaaat taaagcattg
2221 ggggttggga tttagctcag tggtagagtg cttgcctagc aagcgcaagg ccctgagttc
2281 attccccagc tccgaaaaaa agaaaaaaga aaaagaaaaa aaattaaagc attaaccttg
2341 gtgtttggca tcttgggcat aagtatttcc cttggccaac cttctgcctt ttctagagct
2401 tgtctggaga gatagtttc ccttaaaaac agacagatct gcttagagcc ttcacacagt
2461 ccacaggctg ccagggggta agacctggtg ctacaggaga acaggccctt gctgtggatg
2521 tgccctagct ttagccccag gataaggaaa ggaccaggag taaggctgtt caaagaaacc
2581 tctaacagca gtcacacctc cccagctctc acctccccag ctctcacctc cccagctctc
2641 acctctcccg ctctcacctc cccagctctc acctctccag ctctcacctc cccagttctc
2701 acctccccag ctctcacctc tccagctctc acctccccag ctctcacct

```

(2) INFORMATION FOR SEQ ID NO:2537:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 901 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2537:

```

1 cagagcccca cgaaggacca gaacaagaca gagtgcctcc tgccgatcca aacatgagcc
61 gcctgcccgt cctgctcctg ctccaactcc tggtcgccc cggactccaa gctccccatga
121 cccagacaac gcccttgaag acaagctggg ttaactgtct taacatgatc gatgaaatta
181 taacacactt aaagcagcca cctttgcctt tgctggactt caacaacctc aatggggaag
241 accaagacat tctgatggaa aataaccttc gaaggccaaa cctggaggca ttcaacaggg
301 ctgtcaagag ttacagaac gcacagcaa ttgagagcat tcttaaaaat ctctgccat
361 gtctgcccct ggccacggcc gcacccacgc gacatccaat ccatacaag gacggtgact
421 ggaatgaatt ccggaggaaa ctgacgttct atctgaaaac ccttgagaat gcgcaggctc
481 aacagacgac tttagacctc gcgatctttt agtccaacgt ccagctcggt ctctgggcct
541 tctcaccaca gagcctcggg acatcaaaaa cagcagaact tctgaaacct ctgggtcatc
601 tctcacacat tccaggacca gaagcatttc accttttctt gcggcatcag atgaattgtt
661 aattatctaa ttctgaaat gtgcagctcc catttggcct tgtgcggttg tgttctcatt
721 tttatcccat tgagactatt ttttatgta tgtatgtatt tatttattta ttgcctggag
781 tgtgaactgt atttatttta gcagaggagc catgtcctgc tgcttctgca aaaaactcag
841 agtgggggtg ggagcatgtt catttgtacc tcgagtttta aactggttcc tagggatgtg
901 tgagaataaa ctgactctg aac

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(2) INFORMATION FOR SEQ ID NO:2538:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 841 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2538:

```

1 tgtgtaagta agtgcaagct acagagaaaa ccaaggaaga aaaaaattgc cagagatcca
61 ggttaaaaaa aaaaaaagaa aaagaaaaga aaaccaagga agcaatcatc ataaaagaca

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121 ggtgagtggtg ttacctctaa gggcgagcag tcacgattag aggacaaata tggggagagt
181 tttggagcgt tggcgatttt tttttgactt aagcatgggt aaatgggtga ttgcttataa
241 ttacttggtta aattagggtta attagggttt attttacatgt tttatgctct tttctgcatg
301 catttggtgt ctattttttt aattaaaaaa taaaataaag taaaactatg tttcttgac
361 ttaaaataact ggaaaaccaa agagaactcg aaaaactttt agaataaga gagtgttgca
421 agacggcaag aacccttgct ttttccactg ggcttttctt cctccacccc tgagggtgct
481 ccatggaaaa tgcaaatcta cttaactgac ttctgcaaat gtcaaatgta gagtacgaat
541 ttaaggggga gcctggggct gtgccatata ctgctgtgag ctacagtttt ccagcctcta
601 gagccatctt aacaagggtg ctgctgggtg tctactaccc cagtatgtgc tccaacccct
661 gccaggcct cctagtgtta gagaggatat agacatggcc tctccatgga aacctccagg
721 gctggatga cactttaaca aacaaaaagg gaggattgcc ggtacagcgg agtcccgcag
781 gaggataggt gttgccttct aggtggtagg gaggctgaga gggccatcca gagtagggac
841 cacgaactgg ggtctcaaca tgaagagtcg ttcactagat ct

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(2) INFORMATION FOR SEQ ID NO:2539:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2539:

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1 agggccagtt gaaaccaggg agttgctctc ttttctctc ccttgacctc acccctcaga
61 ccatgccaat tctgcctcct aaacctccca gggcagcccc tccccagct cccagtgcga
121 gtgtctcag gtacctgagc tcagctctcg gtgtaccag agggactgca gggctgcaga
181 ggctgagtc caccgcagg gaacagccat gccactgcta gcagaccagt aagagaatgg
241 ccacctggg cctgagcgcc ctgcggccat caccagaaac aaagtgtcaa ggagaagctg
301 cccgaagccc atgggacaaa ccactgggga ctggaacacc agtaattctg tattgggaag
361 cggcaccagg agatgtgctt ctgagagcct gaggctgaac gtggatgttt agcagcgtga
421 cgggctacca gacaaactct catctgttcc agtggcctcc tggccacca ccaggaccaa
481 gcagggcggg cagcagaggg ccagggtagt ccagggtgat gcagatgaga tcccactggg
541 caggaggcct cagtgagctg agtcaggctt ccccttctcg ccacaggggt cctctcacct
601 gctgccatgc ttcccatctc tcatcctcct tgacaagatg aagtataacc gtttaagtaa
661 tcttttttct tgtttcactg atcttgagta ctgaaagtc atggatgaat aattacgtct
721 gtggttttct atggaggctc catgtcagat aaagatcctt ccgacgcctg cccacacca
781 ccacctcccc cgccttgccc ggggttggtg gcaccttgct gctgcacata taaggcggga
841 gctgttgcca actcttcaga gcccacgaa ggaccagaac aagacagagt gcctcctgcc
901 gatccaaaca tgagccgcc
1 ggcacccacc aggaccaagc agggcgggca gcagagggcc agggtagtcc aggtgatggc
61 agatgagatc ccactgggca ggaggcctca gtgagctgag tcaggcttcc ccttcctgcc
121 acaggggtcc tctcacctgc tgccatgctt cccatctctc atctccttg acaagatgaa
181 gtgatccgt ttaagtaac tttttcttg tttcactgat cttgagtcat agaaagtcac
241 ggatgaataa ttacgtctgt ggttttctat ggaggttcca tgtcagataa agatccttcc
301 gacgcctgcc ccacaccacc acctcccccc gccttgcccg ggggttggtg caccttgctg
361 ctgcacatat aaggcgggag gttgttgcca actcttcaga gcccacgaa ggaccagaac
421 aagacagagt gcctcctgcc gatccaaaca tg
1 gatccaggag accagtctcc tagtaccagg tctgcttgcc taaacttggg gtataagagc
61 catagacact gtctcttcca tcagtccttg cccccacccc ctgctgttgc acccttatct
121 ttacacctat tgctcctgca ttgaagacag aagcaccag tttccctgc ctagcataa
181 cttgctagcc ttcatctct cgtgctggtc acatcacacc acaaccgac ccaaaccctg
241 gtttctctac catgcccctg ctctcctgca cccaggctt gtcacactca tcttctacca
301 aaactccagc tttgtgctgt ggcctgtcaa cctgtcccat ggaaaagggg gccaccccat
361 ccttcaggga ctgtcccctg gctctccaca ctctggctt tgccactttc tctctagctg
421 tggtttctca ggtcctttga gaacttccca taactgtccc tgtttccttc ccacctctgt
481 aggcctgagc tgcaaacagg ctccactcc acccaggctc cagggccgac tgggatttag
541 atccctcaat atggctttcc ttccaggagt agttctcttc tctcctcttg cctcccggc
601 tcaaacttgt ccatgccacc tgctacaccg tctgcaact cccagtaact aacactattc
661 tcaaggccca cctttgtccc taggtcccta agcctaatta tctgagttat cagaaggatg
721 gcctagtgtt tgcaatcata tctccatcaa ggggttctgt ctctagatgt gggccttagc
781 gcattgcctt actgcaactg gactagacca gtgaaggagt gaggctgaact ccatatccac
841 ctgcaaggaa taagggtcaa tgggaaggct gcctagaggg agaggagctg ctagtacca
901 cggccagag gactagccca cccatggacg tttaaccatg tgccagaatg cctaccatgt
961 tcaagtttgc cccagtgaac ctggtggccc actaatagtg gtggccaca gtcaggggca
1021 gatttgtaca agggatggta ggaagagggt ccagtgcaca gaaaccccaa gctggctcgg
1081 agccaggcta ctctctccca ccacctgttt ccactcggtc catctctatg acaaagggaag
1141 aagatggcct ttgaataagc agtctttctt cccatgtcga taattttgag tactagaaaa
1201 cgatgaataa gtctgtgggt tgctatggag gttccatgtc agataaagct gcttctgatg
1261 cctgcccttc ccccatgcc ctgcctgggg cccgccccgc cctctctgat gaatatatat
1321 aagggtgaagg ctctgtggc ttcttcagaa ctctttggag gaccagaacg agacaatggt
1381 tcttgccagc tctaccacca gcactcctctg tatgctgctc ccgctcctga tgctcttcca

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1441 ccaggggactc cagatttcag acaggggctc agatgcccac catttactca ggacgttgga
1501 ttgcaggact attgccttgg agatttttgg gaagctccca gtgagtagct ggctgaggtt
1561 agcctgggca ggctggcttc aacaggtgcc tcggaccaat aagcctcatg attctttctt
1621 ttagtatcct caggtatctg gactcaataa tagtgacgac aaagccaatg tgagggtaag
1681 agccctgctc ttgggcattc ttgggttcca tctgtctcct gcctgggtga ctttagcat
1741 gtcactgcac cctgctttgc ttccgttttc acatctatct cagtgggggtt attaaggaaa
1801 tcatcagatg actctctgag cctcagtctg tgccacagcc agctgcaata atgaaagtgt
1861 catttttagga gatacaatgg agagagaact gtgagtgaac cctgccacag gcctctggct
1921 ccactttcag tggggatgcc atggggatgc catggaccag tgaacgaggt gccttctgtg
1981 actgtgtctt ttgcttttct tctcctcca aaactgagct tgtgttctcc acttccacca
2041 gcctaagaca ttaccatttg cagttatttt cccagctcta gttagataca atggttctgt
2101 ttgcttttta tttgtttgca agcgtgctga gtgtctacgt ttccctccc taaggacatg
2161 atgaagtctg taggattttc ttctagatat ctagaagttc ttaattaaat taaagcattg
2221 gggttgggga ttagctcag ttgtagagt cttgcctagc aagcgcaagg ccctgagttc
2281 attccccagc tccgaaaaaa agaaaaaaga aaaagaaaaa aaattaaagc attaaccttg
2341 gtgtttggca tcttgggcat aagtatttcc cttggccaac ctctgcctt ttctagagct
2401 tgtctggaga gatattgttc ctttaaaaac agacagatct gcttagagcc ttcacacagt
2461 ccacaggctg ccaggggtta agacctgtg ctacaggaga acaggccctt gtctgggatg
2521 tgccctagct ttagcccccag gataaggaaa ggaccaggag taaggctgtt caaagaaacc
2581 tctaacagca gtcacacctc cccagctctc acctccccag ctctcacctc cccagctctc
2641 acctctcccg ctctcacctc cccagctctc acctctccag ctctcacttc cccagttctc
2701 acctccccag ctctcacctc tccagctctc acctccccag ctctcacct
1 cagagcccca cgaaggacca gaacaagaca gagtgcctcc tgccgatcca aacatgagcc
61 gctgcccgt cctgctcctg ctccaactcc tggctcgcgc cggactccaa gctcccatga
121 cccagacaac gcccttgaag acaagctggg ttaactgctc taacatgatc gatgaaatta
181 taacacactt aaagcagcca cctttgctt tgctggactt caacaacctc aatggggaag
241 accaagacat tctgatgaa aataaccttc gaaggccaaa cctggaggga ttcaacaggg
301 ctgtcaagag tttacagaac gcatcagcaa ttgagagcat tcttaaaaat ctctgccat
361 gtctgcccct ggccacggcc gcacccacgc gacatccaat ccatatcaag gacggtgact
421 ggaatgaatt cggaggaaa ctgacgttct atctgaaaac ccttgagaat gcgcaggctc
481 aacagacgac ttgagcctc gcgactttt agtccaacgt ccagctcgtt ctctgggcct
541 tctcaccaca gaggctcggg acatcaaaaa cagcagaact tctgaaacct ctgggtcatc
601 tctcacacat tccaggacca gaagcatttc accttttctt gcggcatcag atgaattgtt
661 aattatctaa tttctgaaat gtgcagctcc catttggcct tgtgcggtt tggtctcatt
721 tttatcccat tgagactatt ttttatgta tgtatgtatt ttttattta ttgctggag
781 tgtgaactgt atttatttta gcagaggagc catgtcctgc tgcctctgca aaaaactcag
841 agtggggtgg ggagcatgtt catttgtacc tgcagtttta aactggttcc tagggatgtg
901 tgagaataaa ctgactctg aac
1 tgtgtaagta agtgcaagct acagagaaaa ccaaggaaga aaaaaattgc cagagatcca
61 ggttaaaaaa aaaaaaagaa aaagaaaaga aaaccaagga agcaatcatc ataaaaagaca
121 ggtgagtggg ttacctctaa gggcgagcag tcacgattag aggacaaata tggggagagt
181 tttggagcgt tggcgatttt tttttgactt aagcatggtt aaatgggtga ttgcttataa
241 ttacttgtaa aattaggtta attaggtttt atttacatgt tttatgctct tttctgcatg
301 cttttgtgct ctattttttt aattaaaaaa taaaataaag taaaactatg tttcttgcac
361 ttaaaatact ggaaaaccaa agagaatctg aaaaactttt agaatgaaga gatttgga
421 agacggcaag aacccttgct ttttccactg ggcctttctt cctccacccc tgaggggtgct
481 ccatggaaaa tgcaaatcta cttaactgac tttcgcaaat gtcaaatgta gactacgaat
541 ttcaagggga gcctggggct gtgccatata ctgctgtgag ctacagtttt ccagcctcta
601 gagccatctt aacaaggtgc ctgcctgggt tctactaccc cagtatgtgc tccaaccctt
661 gccaggcct cctagtgtca gagaggatat agacatggcc tctccatgga aacctccagg
721 gctgggtatga caccttaaca aacaaaaagg gaggtatgcc ggtacagcg agtcccagcag
781 gaggataggt gttgccttct aggtggtagg gaggtgaga gggccatcca gagtagggac
841 cacgaactgg ggtctcaaca tgaagagtcg ttcacagat ct

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(2) INFORMATION FOR SEQ ID NO:2540:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1441 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2540:

```

1 gcacacggga agatatacaga aacatcctag gatcaggaca cccagatct tctcaactgg
61 aaccacgaag gctgtttctt ccacacagca ctttgatctc catttaagca ggcacctctg
121 tctgctgttc cggagctgcg tccccgatgg tctcctttg gctcacgctg ctctgatcg
181 cctgcccctg tctcctgcaa acgaaggaa atccaaaccc accaatcacg aacctaaagg
241 tgaagcaaaa ggctcagcag ttgacctggg accttaacag aaatgtgacc gatatcgagt
301 gtgttaaaaa tgccgactat tctatgccgg cagtgaacaa tagctattgc cagtttgagg
361 caatttctt atgtgaagt accaactaca ccgtccgagt ggccaacca ccattctcca
421 cgtggatcct ctccctgag aacagtggga agccttgggc aggtgcggag aatctgacct

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481 gctggattca tgacgtggat ttcttgagct gcagctgggc ggtagggccc gggggccccc
541 cggacgtcca gtacgacctg tacttgaacg ttgccaacag gcgtcaacag tacgagtgtc
601 ttcactacaa aacggatgct cagggaacac gtatcgggtg tcgtttcgat gacatctctc
661 gactctccag cggttctcaa agttcccaca tcctgggtcg gggcaggagc gcagccttcg
721 gtatccccctg cacagataag tttgtcgtct tttcacagat tgagatatta actccaccca
781 acatgactgc aaagtgtaat aagacacatt cctttatgca ctggaaaatg agaagtcatt
841 tcaatcgcaa atttcgctat gagcttcaga taaaaagag aatgcagcct gtaatcacag
901 aacaggtcag agacagaacc tccttccagc tactcaatcc tggaacgtac acagtacaaa
961 taagagcccg ggaagagagt tatgaattct tgagcgctcg gagcaccccc cagcgcttcg
1021 agtgcgacca ggaggaggcg gcaaacacac gtgcctggcg gacgtcgctg ctgatcgcg
1081 tggggacgct gctggccctg gtctgtgtct tcgtgatctg cagaaggatc ctggtgatgc
1141 agagactctt tcccgcctc cctcacatga aagaccccat cgggtgacagc ttccaaaacg
1201 acaagctggg ggtctgggag gcgggcaaa cggcctgga ggagtgtctg gtgactgaag
1261 tacaggtcgt gcagaaaact tgagactggg gttcagggct tgggggggtc tgcctcaatc
1321 tccctggccg ggccaggcgc ctgcacagac tggctgctgg acctgcgcac gcagcccagg
1381 aatggacatt cctaacgggt ggtgggcatg ggagatgcct gtgtaatttc gtcggaagct
1441 gccaggaaga agaacagaac

```

(2) INFORMATION FOR SEQ ID NO:2541:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 601 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2541:

```

1 gatcgttagc ttctcctgat aaactaattg cctcacattg tcaactgcaa tcgacaccta
61 ttaatgggtc tcacctccca actgcttccc cctctgttct tcctgctagc atgtgccggc
121 aactttgtcc acggacacaa gtgcgatatc accttacagg agatcatcaa aactttgaac
181 agcctcacag agcagaagac tctgtgcacc gaggtagacc taacagacat ctttgcctgc
241 tccaagaaca caactgagaa ggaaaccttc tgcagggtcg cgaactgtgt cccggcagttc
301 tacagccacc atgagaagga cactcgctgc ctgggtgcca ctgcacagca gttccacagg
361 cacaagcagc tgatccgatt cctgaaacgg ctgcacagga acctctgggg cctggcgggc
421 ttgaattcct gtcctgtgaa ggaagccaac cagagtacgt tggaaaactt cttggaaagg
481 ctaaagacga tcatgagaga gaaatattca aagtgttcga gctgaatatt ttaatttatg
541 agtttttgat agctttattt tttaagtatt tatatattha taactcatca taaaataaag
601 tatatataga atct

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(2) INFORMATION FOR SEQ ID NO:2542:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9841 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2542:

```

1 gaattcaata aaaaacaagc agggcgcgct gtggggcact gactaggagg gctgatttgt
61 aagttggtaa gactgtagct ctttttccta attagctgag gatgtgttta ggttccattc
121 aaaaagtggg cattcctggc caggcatggt ggctcacacc tgtaatctca gagctttggg
181 agactgaggt aggaggatca cttgagccca ggaatttgag atgagcctag gcaacatagt
241 gagactctta tctctatcaa aaaataaaaa taaaaatgag ccaggcatgg tgccgtggac
301 cagcaccta ctgctagggg ggctgagggt ggaggatcat tgagcctggg aggttgaggc
361 tgcagtgate cctgatcaaa cattgcattt cagcctgggt gacagagtga gacctgtct
421 cagaaaaaaa aaaaaaaagt cattcctgaa acctcagaat agacctacct tgccaaagggc
481 ttccttatgg gtaaggacct tatggacctg ctgggaccca aactaggcct cacctgatac
541 gacctgtcct tctcaaaaca ctaaacttgg gagaacattg tccccagtg ctggggtagg
601 agagtctgcc tgttattctg cctctatgca gagaaggagc cccagatcat cttttccatg
661 acaggacagt ttccaagatg ccacctgtac ttggaagaag ccagggttaa atacttttca
721 agtaaaactt tcttgatatt actctatctt tccccaggag gactgcatta caacaaattc
781 ggacacctgt ggcctctccc ttctatgcaa agcaaaaagc cagcagcagc cccaagctga
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(2) INFORMATION FOR SEQ ID NO:2543:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10442 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(x1) SEQUENCE DESCRIPTION: SEQ ID NO:2543:

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3961 atctctaagt tgggtagcat tctactcttg gcagttgctg gaaagaaggc actggtctag
4021 gtcttgggct tcacaggtaa cacctgtcag ggtgtctatg aagtcaaggc tgtctgagga
4081 acagcaaagt ggaagaagc aagctggctg gctgatgaag ggtttcttgg gtggacaagt
4141 agttggagcg atttcttatt taccaaagag agctaaagtt cataattcta cagagagttc
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4321 tcctagttag gctgggtcaag aaccgagtta gaactctcac agagtcactg cccacagaag
4381 aaatctccca agtggctgtt tcctgacatt cccgggaggc aggcctcctt ctgagtcact
4441 ccctaagcag ttctgaactg tgaggtcagc caggctgtcc aagtgcactc cctgagccac
4501 tggcagacac actcagcagc cagagctaga caggcagggt gtaggagtcg agggccacgg
4561 cagggtgga gtgtcgcccc ctcgctgcga taccagagca agtaaaacgt taaggccttg
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4741 ttttttctta tactatgtgg ccataatacg gtcaaaatta agtttaattt ccaggctcca
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5941 caccaggcca ggttcagact gagacacaat ccctctcctg ggttcccaat gactgtctc
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6601 ttctggggag aaggctgctg cgtttgcaat tgggagaggt tgttgacaga ggttatgtc
6661 tgtggcaagc agccttctct cagtggaaata cttgaagaca ggtctgtagt tgagcaaaact
6721 cacctccatt tgtcctcctg gaaagaagaa atcaagagga aaaatctctc tcccatctc
6781 caaatggagc tggcacattg ctatctgtgg catttgtctt tccagaacac aactgagaag

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6841 gaaaccttct gcagggtgc gactgtgtc cggcagttct acagccacca tgagaaggac
6901 actcgtctcc tgggtgcgac tgcacagcag ttccacaggc acaagcagct gatccgattc
6961 ctggaacggc tcgacaggaa cctctggggc ctggcgggct tggtaagctg cactgtattc
7021 ctggcaagcc ggccgcgtgg ctctgtgtgg acagcagcct cacttctaaa cactcttag
7081 gagctgcagc acccttggtc aaccatttca ttcttact cttcaataa gtatttgctg
7141 aagttccaca agtgctgggt gtggttctag gtgctgagga cgtgtcacta aagacagcag
7201 gccgagtcct tgttctcatg gaattgttct atgggagagt tagaaaaaca aacatgtaaa
7261 atgatggcca gcagtgtac gtgtacaaa gaaaaacata gaaataaaga acataagagt
7321 catgggggag ggggtgact taggagctgg tgacattatc tgagcagata tttgaattga
7381 gggagcaggc cacatgacta actagggaga ccattccagg gagaaggagg aggtatgcaa
7441 aggccttagg atggaaatga actaaacttc tgtattttaa gaccagttag aaggccagtg
7501 tggctggatc agagtgtgtg aggggtagtt tccaggacag cagatcacac aaggccttta
7561 gattccacca cgagtatgga gggaacacct gcagagcttt gggcaggaca aagactgtac
7621 aatctgattt acgtgattta aaagggtcag tctggctact gtgtggtaaa taggctgaaa
7681 gggggaaagc atagaagcaa gatggcctgt tgggaggcta ccacagtaaa ccaggctaga
7741 gatgatgtg gcgtggacag aatgaagcaa gatggcctgt tgggaggcta ccacagtaaa
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8221 atacaaaaag gagagtcctt agatagatc tgctgaaaat ctgaatgaca gaaaggaga
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8341 gggcctgagg aggagtgacc agtgaggcag gagaacatgg agagtgggag gtaccccagg
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8521 atgtaaatgg agaggcagga aggaaagccc agctggagtg ggctcaccga ggataggggtg
8581 gcgagaggag acaaagaagg aacagttagg gcagacaact cttgaagat gtttagctat
8641 aaggctcag agaaactgag cccacagctg cagggtggtt atggagttag ggaagctctt
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9001 taggcaaaaca attgtcccaa ctttacaata gaaactgaag cttttataaa ttaagtagta
9061 catcctaagc aatacaatta ataaatggtg gagctgagat tcaaaactga gcagtggcct
9121 gggggtagca tctggaatcc ttcccacctt tagggctgct gtgctgagggt gctgctgttt
9181 aatggcacag agggccagat gactgaatct ctctcagcag tccaggcagt catgcagaag
9241 gccagtaga gcaccgggca ggtctgagcc agcatcttca agttccaccc tgtgagcaag
9301 cacttagctg tgacacactt ctcgagagac tggactcccc cccgcgcaac ccacccaaaa
9361 gcagataggt aatggtatac agtaaccatt tctagaatg taagttagt gcacccaaaa
9421 taggcaaaac ctgctggcct agtgatagag acaactccca gtcaggctag actggaggcc
9481 ttggttttat aagtgttcag gtgacaagt ccacagtagg cttgatcaag tagacaggca
9541 ggcaagacaa atgcttacca atgcaagcta atgaaatgtt tcttttgag aattcctgtc
9601 ctgtgaagga agccaaccag agtacgttgg aaaacttctt ggaaaggcta aagacgatca
9661 tgagagagaa atattcaaag tgttcgagct gaattattta atttatgagt ttttgatagc
9721 tttatttttt aagtatttat atatttataa ctcatcataa aataaagtat atatagaatc
9781 taacagcaat ggcattttaa gtattggcta tgtttacttg acaaatgaaa tttatggttg
9841 caacttttag ggaaatcaat ttagtttacc aagagactat aaatgctat gagccaaaaac

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(2) INFORMATION FOR SEQ ID NO:2544:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3541 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2544:

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1 ggcgaatgga gcagggggcg gcagataatt aaagatttac acacagctgg aagaaatcat
61 agagaagccg ggcgtggtgg ctcatgcta taatcccagc acttttgag gctgagcg
121 gcagatcact tgagatcagg agttcgagac cagcctgggt ccttggcatc tcccaatggg
181 gtggctttgc tctgggctcc tgttccctgt gagctgcctg gtcctgctgc aggtggcaag
241 ctctgggaac atgaaggtct tgcaggagcc cacctgcgtc tccgactaca tgagcatctc
301 tacttgcgag tgaagatga atggtccac caattgcagc accgagctcc gcctgttga
361 ccagctggtt tttctgctct ccgaagccca cagtgatc cctgagaaca acggaggcgc
421 ggggtgcgtg tgccacctgc tcatggatga cgtggcagt gcggataact atacactgga
481 cctgtgggct gggcagcagc tgcgtgggaa gggctccttc aagcccagc agcatgtgaa
541 acccagggcc ccaggaaacc tgacagttca caccaatgct tccgacactc tgctgctgac

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601 ctggagcaac ccgtatcccc ctgacaatta cctgtataat catctcacct atgcagtcaa
661 catttggagt gaaaacgacc cggcagattt cagaatctat aacgtgacct acctagaacc
721 ctccctccgc atcgagccca gcaccctgaa gtctgggatt tcttacaggg caccgggtgag
781 ggctctgggt cagtgtctata acaccacctg gagtgtgtgg agccccagca ccaagtggca
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1141 agatcctcac aaggctggca aagagatgcc tttccagggc tctggaaaat cagcatggtg
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2941 gacttgtgaa cgagttgttg gctgtccct ccacagcttc tgcagcagac tgtccctgtt
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3061 tctgtctcac tgaactagaa gccgagccta gaaactaaca cagccatcaa gggaaatgact
3121 ttggcgccct tgggaaatcg atgagaaatt gaacttcagg gaggtgtgct attgcctaga
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3241 caaggggtgt tcagttaagg ggagcaacag aggacatgaa aaattgctat gactaaagca
3301 gggacaattt gctgccaaac acccatgccc agctgtatgg ctgggggctc ctctgtatga
3361 ttgaaccccc agaataaata tgctcagcca ccctgtgggc cgggcaatcc agacagcagg
3421 cataaggcac cagttacctt gcagtgtggc ccagacctca ggtgttaggg aaggcgggaa
3481 ccttgggttg agtaatgtc gtctgtgtgt tttagtttca tcacctgtta tctgtgtttg
3541 ctgaggagag ttgaacagaa ggggtggagt tttgtataaa taaagtctct ttgtctc

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(2) INFORMATION FOR SEQ ID NO:2545:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3241 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2545:

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1 ggatcctaata caagacccca gtgaacagaa ctgcaccctg ccaaggcttg gcagtttcca
61 tttcaatcac tgtcttccca ccagtatttt caatttcttt taagacagat taatctagcc
121 acagtcata tagaacatag ccgatctgaa aaaaacattc ccaatattta tgtattttag
181 cataaaattc tgtttagtgg tctaccttat actttgtttt gcacacatct ttttaaggga
241 agttaatttt ctgattttta gaaatgcaa tgtggggcaa tgatgtatta acccaaagat
301 tcttcgtaat agaaaatgtt tttaaagggg ggaacagggt atttttatta ttaaagata
361 aaagtaaatt tattttttta gatataaggc attggaaaca tttagtttca cgatatgcca
421 ttattaggca ttctctatct gattgttaga aattattcat ttctcaaag acagacaata
481 aattgactgg ggacgcagtc ttgtactatg cactttcttt gccaaaggca aacgcagaac
541 ttttcagagc catgagatg cttctgcatt tgagtttgct agctcttgga gctcctacg
601 tgtatgccat cccacagaa attcccacaa gtgcatttgt gaaagagacc ttggcactgc

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661 tttctactca tcgaactctg ctgatagcca atgaggtaat tttctttatg attcctacag
721 tctgtaaaagt gcataggtaa tcatttgtga tggttccttt actatatata gagatctggt
781 ataaataata agattctgag cacattagta catgggtgat aactacatca ccagcaaca
841 ttctgttaaa agttatgaat gctggtgtgc tgtaaaaatg attgtatttc ctttctctc
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1081 aatatgagga atgacttttt atcaagtaga atccttttaa caagtggatt aggctctttg
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1321 ttaaaatata taacaaatgc cctatatata taatttctgc atacttaaat aattatgact
1381 atatgatggt gttgtatgca tttgaatatg tcctgggtcat attaaaatgt aaaatatata
1441 gttttattag tctaaataga ataaaactac cagctagaac tgtagaaaca cattgatatg
1501 agtttaatgt ataatgcatt acacttccaa aacatttttt tccagttaca taattaagtt
1561 atactcttta taaaactcct cagtaatcat ataagcttca tctacttttt gaaaatttta
1621 tcttaatatg tgggtggttg ttgcctagaa aacaaacaaa aaactctttg gagaaggaa
1681 ctcatgtaaa taccacaaaa caaagcctaa ctttgtggac caaaattggt ttaataatta
1741 ttttttaatt gatgaattaa aaagtatata tatttattgt gtacaatatg atgttttgaa
1801 gtatgtatac attgcagaat ggacaatgga ccaaattttt atacctgttc ttgattattt
1861 gcatttttaa aattttcctc atttagcacc aactgtgcac tgaagaaatc tttcagggaa
1921 taggcacact ggagagtcaa actgtgcaag ggggtactgt ggaaagacta ttcaaaaact
1981 tggccttaat aaagaaatc attgacggcc aaaaagtaag ttacacacat tcaatggaag
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2221 actaaactgg tttgttgtag ccaaagattt tggaggagaa ggacatttta ctgcagttag
2281 aatgagggcc aagaaagagt caggccttaa ttttcagtat aatttaactt cagagggaaa
2341 gtaaatattt caggcatact gacactttgc cagaaagcat aaaattctta aaatatattt
2401 cagatatcag aatcattgaa gtatttctct ccaggcaaaa ttgatatact ttttctttat
2461 ttaacttaac attctgtaaa atgtctgtta acttaatagt atttatgaaa tggttaagaa
2521 tttggtaaat tagtatttat ttaatgttat gttgtgttct aataaaacaa aaatagacaa
2581 ctgttcaatt tgctgtctgc ctctgtctta gcaattgaag ttagcacagt ccattgagta
2641 catgccagat ttggaggaa ggtctgagca catgtggctg agcatcccca tttctctgga
2701 gaagtctcaa ggttgcaagg cacaccagag gtggaagtga tctagcagga cttagtgggg
2761 atgtggggag caggacaca ggcaggaggt gaacctggtt ttctctctac agtatatcca
2821 gaacctggga tgggtgcagg taaatggtag ggaataaatg aatgaatgtg ctttccaaga
2881 ctgattgtag aactaaaatg agttgtgaag cgtcccctgg aagaagggca gtgtgggaac
2941 ctgtaactag gttcctgccc agcctgtgag aagaatttgg cagatcaatc tcattgccag
3001 tatagagagg aagccagaaa cctctctgca caaggcctgc aggggttctt accccacctg
3061 accctgcacc ataacaaaag gaacagagag acactggtag ggagtcacca ttagaaagac
3121 tgagttccgt attcccgggg gcagggcagc accaggccgc acaacactcc attctgctg
3181 cttatggcta tcagtagcat cactagagat tcttctgttt gagaaaactt ctcaaggatc
3241 c

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(2) INFORMATION FOR SEQ ID NO:2546:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 781 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2546:

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1 atgcactttc tttgccaaag gcaaacgcag aacgtttcag agccatgagg atgcttctgc
61 atttgagttt gctagctctt ggagctgcct acgtgtatgc catccccaca gaaattccca
121 caagtgcatt ggtgaaagag accttggcac tgctttctac tcatcgaact ctgctgatag
181 ccaatgagac tctgaggatt cctgttctct tacataaaaa tcaccaactg tgactgaag
241 aatcttttca gggaaatagg acactggaga gtcaaactgt gcaagggggt actgtggaaa
301 gactattcaa aaacttgctc ttaataaaga aatacattga cggccaaaaa aaaaagtgtg
361 gagaagaaag acggagagta aaccaattcc tagactacct gcaagagttt cttggtgtaa
421 tgaacaccga gtggataata gaaagttag actaaactgg tttgtgtag ccaaagattt
481 tggaggagaa ggacatttta ctgcagttag aatgagggcc aagaagaggt caggccttaa
541 ttttcaatat aatttaactt cagagggaaa gtaaatattt caggcatact gacactttgc
601 cagaaagcat aaaattctta aaatatattt cagatatcag aatcattgaa gtatttctct
661 ccaggcaaaa ttgatatact ttttctttat ttaacttaac attctgtaaa atgtctgtta
721 acttaatagt atttatgaaa tggtaagaa tttggtaaat tagtatttat ttaatgttat
781 gttgtgttct aataaaacaa aaatagacaa ctgttc

```

(2) INFORMATION FOR SEQ ID NO:2547:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4022 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2547:

```
1 ggatcctaata caagaccca gtgaacagaa ctgacccctg ccaaggcttg gcagtttcca
61 tttcaatcac tgtcttccca ccagatattt caatttcttt taagacagat taatctagcc
121 acagtcata tagaacatag ccgatctgaa aaaaacattc ccaatattta tgtattttag
181 cataaaattc tgtttagtgg tctaccttat actttgtttt gcacacatct tttgaaggga
241 agttaatttt ctgattttta gaaatgcaaa tgtggggcaa tggatgtatta acccaaagat
301 tcttcgtaat agaaaatgtt tttaaagggg ggaacacagg atttttatta ttaaaagata
361 aaagtaaatt ttttttttaa gatataaggc attggaaaca tttagtttca cgatagcca
421 ttattaggca ttctctatct gattgttaga aattattcat ttctcaaaag acagacaata
481 aattgactgg ggacgcagtc ttgtactatg cactttcttt gccaaaggca aacgcagaac
541 gtttcagagc catgaggatg cttctgcatt tgagtttgct agctcttgga gctgcctacg
601 tgtatggcat cccacagaa attcccacaa gtgcattggg gaaagagacc ttggcactgc
661 tttctactca tcgaactctg ctgatagcca atgaggtaat tttctttatg attcctacag
721 tctgtaaaag gcataggtaa tcatttgtga tggttccttt actatatata gagatctgtt
781 ataaataata agattctgag cacattagta catgggtgat aactacatca ccagcaaaaca
841 ttctgttaaa agttatgaat gctggtgtgc tgtaaaaatg attgtatttc ctttctcttc
901 cagactctga ggattcctgt tctgtacat aaaaatgtaa gttaaattat gattcagtaa
961 aatgatggca tgaataagta aatttctgt ttaagctgt aaatcattag tatcatttgg
1021 aactatttaa ttttctatat tttgttttca tatgggtggc tgtgaatgtc tgtacttata
1081 aatatgagga atgacttttt atcaagtaga atccttttaa caagtggtat aggtcttttg
1141 gtgatgttgt tagtttgctt cccaaagagc atcgtgtcag ggattctttc cagaaggatt
1201 ccacactgag tgagaggtgc gtgctagtct ccgtgcagtt ctgactcttt ctactctaa
1261 cgtgtttctg aaagtattag caactcagaa ttatatTTTT agaaccatga tcagtagaca
1321 ttaaaatata taacaaatgc cctatatata taatttctgc atacttaaat aattatgact
1381 atatgatggg gtgtatgca tttgaatatg tctgtgtcat attaaaatgt aaaatatata
1441 gttttattag tctaaataga ataaaactac cagctagaac tgtagaacca cattgatattg
1501 agtttaatgt ataatgcatt acacttccaa aacatttttt tccagttaca taattaagtt
1561 atatccttta taaaactcct cagtaatcat ataagcttca tctacttttt gaaaatttta
1621 tcttaatatg tgggtggttg ttgcttagaa aacaaacaaa aaactctttg gagaagggaa
1681 ctcatgtaaa taccacaaaa caaagcctaa ctttgtggac caaaattgtt ttaataatta
1741 ttttttaatt gatgaattaa aaagtatata tatttattgt gtacaatatg atgttttgaa
1801 gtatgtatag attgcagaat ggacaatgga ccaaattttt ataccttgct ttgattattt
1861 gcatttttaa aattttcttc atttagcacc aactgtgcac tgaagaaatc tttcagggaa
1921 taggcacact ggagagtcaa actgtgcaag ggggtactgt ggaaagacta ttcaaaaact
1981 tgtccttaat aaagaaatag attgacggcc aaaaagtaag ttacacacat tcaatggaag
2041 ctatatttgt ctggctgtgc ctatttctat ggaattgaca gtttctgtga atacctattg
2101 tcatttttct tttttcacag aaaaagtgtg gagaagaaag acggagagta aaccaattcc
2161 tagactacct gcaagagttt cttggtgtaa tgaacaccga gtggataata gaaagttaga
2221 actaaactgg tttgttgag ccaaagattt tggaggagaa ggacatttta ctgcagttag
2281 aatgagggcc aagaaagagt caggccttaa ttttcagtat aatttaactt cagagggaaa
2341 gtaaatattt caggcactat gacactttgc cagaaagcat aaaattctta aaatatattt
2401 cagatatcag aatcattgaa gtattttcct ccaggcaaaa ttgatatact ttttcttat
2461 ttaacttaac attctgtaaa atgtctgtta acttaaatag ttttatgaaa tggtaagaa
2521 tttggtaaat tagtatttat ttaattgtat gttgtgttct aataaaacaa aaatagacaa
2581 ctgttcaatt tctgtctggc cttgtcttta gcaattgaag ttgacacagt cttagttaga
2641 catgcccagt ttggaggag ggtctgagca catgtggctg agcatcccca tttctctgga
2701 gaagtctcaa ggttgcaagg cacaccagag gtggaagtga tctagcagga cttagtgggg
2761 atgtggggag caggacaca ggcaggaggt gaacctggtt ttctctctac agtatatcca
2821 gaacctggga tgggtgcagg taaatggtag ggaataaatg aatgaatgtg ctttccaaga
2881 ctgattgtag aactaaaatg agttgtaagg cgtcccctgg aagaagggca gtgtgggaac
2941 ctgtaactag gttcctgccc agcctgtgag aagaatttgg cagatcaatc tcattgccag
3001 tatagagagg aagccagaaa cctctctgac caaggctgac aggggttctt accccactcg
3061 accctgcacc ataacaaaag gaacagagag acactggtag ggcagtccca ttagaaagac
3121 tgagttccgt attcccgggg gcagggcagc accaggccgc acaacactcc attctgctg
3181 cttatggcta tcagtagcat cactagagat tcttctgttt gagaaaactt ctcaaggatc
3241 c
1 atgcactttc tttgccaaag gcaaacgcag aacgtttcag agccatgagg atgcttctgc
61 atttgagttt gctagctctt ggagctgcct acgtgtatgc catccccaca gaaattccca
121 caagtgcatt ggtgaaagag accttggcac tgctttctac tcatcgaaact ctgctgatag
181 ccaatgagac tctgaggatt cctgttctctg tacataaaaa tcaccaactg tgcactgaag
241 aaatctttca gggaataggc aacttgagga gtcaaactgt gcaagggggg actgtggaaa
301 gactattcaa aaacttgtcc ttaataaaga aatacattga cggccaaaaa aaaaagtgtg
361 gagaagaaaag acggagagta aaccaattcc tagactacct gcaagagttt cttggtgtaa
421 tgaacaccga gtggataata gaaagttaga actaaactgg tttgttgag ccaaagattt
481 tggaggagaa ggacatttta ctgcagttag aatgagggcc aagaaagagt caggccttaa
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541 ttttcaatat aatttaactt cagagggaaa gttaaatttt caggcatact gacactttgc
601 cagaaagcat aaaattctta aaatatattt cagatatcag aatcattgaa gtattttcct
661 ccaggcaaaa ttgatatact tttttcttat ttaacttaac attctgtaaa atgtctgtta
721 acttaaatgt atttatgaaa tggtaagaa tttggtaaat tagtatttat ttaatgttat
781 gttgtgttct aataaaacaa aaatagacaa ctgttc

```

(2) INFORMATION FOR SEQ ID NO:2548:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1981 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2548:

```

1 tagatgctgg ggttgacgcc acgagcatag acacgacaga cacggtcctc gccatcttct
61 gttgagtact ggtcggaaca agaggatcgt ctgtagacag gatagatca tcgtggcgca
121 tgtattactc atccttttgg gggccactga gatactgaa gctgacttac ttctgtatga
181 aaagatttca cttctccac ctgtcaattt caccattaaa gttactgggt ttgctcaagt
241 tcttttacaa tggaaaccaa atcctgatca agagcaaagg aatgttaatc tagaatatca
301 agtgaaaata aacgctccaa aagaagatga ctatgaaacc agaactactg aaagcaaagt
361 tgttaaccatc ctccacaagg gcttttcagc aagtgtgcgg accatcctgc agaaccacca
421 ctactactg gccagcagct gggcttctgc tgaactcat gcccaccag ggtctcctgg
481 aacctcaatt gtgaatttaa ctgcaccac aaacactaca gaagacaatt attcacgttt
541 aaggctatc caagtttccc ttcactgcac ctggcttggt ggcacagatg cccctgagga
601 cacgcagtat tttctctact ataggatggt ctcttgact gaagaatgcc aagaatacag
661 caaagacaca ctggggagaa atatcgcatg ctggtttccc aggactttta tctcagcaa
721 agggcggtgac tggcttgcgg tgcttgtaa cggctccagc aagcactctg ctatcaggcc
781 ctttgatcag ctgtttgccc ttcaagccat tgatcaata aatcctccac tgaatgtcac
841 agcagagatt gaaggaactc gtctctctat ccaatgggag aaaccagtgt ctgcttttcc
901 aatccattgc tttgattatg aagtaaaaat acacaatata aggaatggat atttgcagat
961 agaaaaattg atgaccaatg cattcatctc aataattgat gatctttcta agtacgatgt
1021 tcaagtgaga gcagcagtga gctccatgtg cagagaggca gggctctgga gtgagtggag
1081 ccaacctatt tatgtgggaa atgatgaaca caagcccttg agagatgggt ttgtcattgt
1141 gattatggca accatctgct tcatcttgtt aattctctcg ctatctgta aaatatgtca
1201 tttatggatc aagttgttcc caccaattcc agcaccataa agtaatatca aagatctctt
1261 tgtaaccact aactatgaga aagctggaat ttaaattcaa gcatgtttta acttttgggt
1321 taaggtactt ggggtgacct ggcagtgttg taagctcttt acattaatta attactctc
1381 taggtactgt tatcttcatt ttataaaciaa ggcagctgaa gttgagagaa ataagtaacc
1441 tgtcctaggt cacacaatta ggaatgaca gatctggcag tctatttcca ggcagtctat
1501 tcccacgagg tcatgagtgc gaaagaggga ctagggaag aatgattaac tccagggagc
1561 tgacttttct agtgtgctta cctgttttgc atctctcaag gatgtgccat gaagctgtag
1621 ccagggtgaa ttgtaccaca gccctgacat gaacacctga tggcagctgc tgggttgag
1681 cctagacaaa aacatgaaga accatggctg ctgcctgagc ccatcgtgct gtaattatag
1741 aaaaccttct aagggagaa tatgctgata tttttcagat aagtaccctt ttataaaaa
1801 tctccaagt tagccctcga ttttccatgt aaggaacacag aggctttgag ataatgtctg
1861 tctcctaagg gacaaagcca ggacttgatc ctgtcttaaa aatgcaaaat gtagtacttc
1921 tcccatcaaa ggtagacatg cactaaggga caggttttgg cttggatatca gaatacattt
1981 ttaaaagctg tgtaagaatt gaacgggctg tactaggggg tata

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(2) INFORMATION FOR SEQ ID NO:2549:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 901 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2549:

```

1 gatctttcta agtacgatgt tcaagtgaga gcagcagtga gctccatgtg cagagaggca
61 gggctctgga gtgagtggag ccaacctatt tatgtgggaa atgatgaaca caagcccttg
121 agagagtgggt ttgtcattgt gattatggca accatctgct tcatcttgtt aattctctcg
181 ctatctgta aaatatgtca tttatggatc aagttgttcc caccaattcc agcaccataa
241 agtaatatca aagatctctt tgtaaccact aactatgagg tctctgcat tttcatatac
301 atcttagatt cggctgacaa ttttctacaa aaaaaaaaag ctgggtccag tgagacggaa
361 attgaagtca tctgttatat agagaagcct ggagttgaga ccctggagga ttctgtgttt
421 tgactgtcac tttggcatcc tctgataaac tcacacatgc ctgagtcctc cagtgaagaa
481 aacagggatg ctggctcttg gctaagaggt gttcagaatt taggcaaac tcaatttacc
541 tgcgaagcaa tacaccaga cacaccagtc ttgtatctct taaaagtatg gatgcttcat
601 ccaaatcgcc tcacctacag cagggaagtt gactcatcca agcattttgc catgtttttt
661 ctccccatgc cgtacagggt agcacctct cactgccaat tctttgcaat ttgcttgact
721 cacctcagac ttttcattca caacagacag cttttaaggc taacgtccag ctgtatttac

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781 ttctggctgt gcccgtttgg ctgtttaagc tgccaattgt agcactcagc taccatctga
 841 ggaagaaagc attttgcatc agcctggagt gaaccatgaa cttggattca agactgtctt
 901 ttctatagca agtgagagcc acaaatctct c

(2) INFORMATION FOR SEQ ID NO:2550:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1321 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2550:

1 ccgctgcttc tcatcgcatg gccaccgcat ttctcaggcc aggcacattg agcattgggc
 61 ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
 121 cggtcctcgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacaggc
 181 tacagattgt tttagattga agtttctgt catgttcaact catctttaa tctctatagt
 241 aaaaaggata tgatcatcgt ggcgcatgta ttactcatcc ttttgggggc cactgagata
 301 ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt caatttcacc
 361 attaaagtta ctggtttggc tcaagtctt ttacaatgga aaccaaattc tgatcaagag
 421 caaaggaatg ttaatctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
 481 gaaaccagaa tcaactgaaag caaatgtgta accatcctcc acaaaggctt ttcagcaagt
 541 gtgcggaaca tcctgcagaa cgaccactca ctactggcca gcagctgggc ttctgtgaa
 601 cttcatgccc caccagggtc tcctggaacc tcaattgtga atttaacttg caccacaaac
 661 actacagaag acaattattc acgtttaagg tcataccaag tttcccttca ctgcacctgg
 721 cttgttggca cagatgcccc tgaggacacg cagtattttc tctactatag gtatggctct
 781 tggactgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat cgcactgtgg
 841 tttcccagga cttttatcct cagcaagggt cgtgactggc tttcgggtgt tgtaaacggc
 901 tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca cgccattgat
 961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
 1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaaatacac
 1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
 1141 attgatgatc tttctaagta cgatgttcaa gtgagagcag cagtgaagtc catgtgcaga
 1201 gaggcagggt tctggagtga gtggagccaa cctatttatg tggggttctc aagataaagg
 1261 agataacatc cagctttcct gccccacacc gtatctgaaa taaaaacaac agcagggata
 1321 gcagatt

(2) INFORMATION FOR SEQ ID NO:2551:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1621 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2551:

1 ccgctgcttc tcatcgcatg gccaccgcat ttctcaggcc aggcacattg agcattgggc
 61 ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
 121 cggtcctcgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacaggc
 181 tacagattgt tttagattga agtttctgt catgttcaact catctttaa tctctatagt
 241 aaaaaggata tgatcatcgt ggcgcatgta ttactcatcc ttttgggggc cactgagata
 301 ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt caatttcacc
 361 attaaagtta ctggtttggc tcaagtctt ttacaatgga aaccaaattc tgatcaagag
 421 caaaggaatg ttaatctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
 481 gaaaccagaa tcaactgaaag caaatgtgta accatcctcc acaaaggctt ttcagcaagt
 541 gtgcggaaca tcctgcagaa cgaccactca ctactggcca gcagctgggc ttctgtgaa
 601 cttcatgccc caccagggtc tcctggaacc tcaattgtga atttaacttg caccacaaac
 661 actacagaag acaattattc acgtttaagg tcataccaag tttcccttca ctgcacctgg
 721 cttgttggca cagatgcccc tgaggacacg cagtattttc tctactatag gtatggctct
 781 tggactgaag aatgccaaga atacagcaaa gacacactgg ggagaaatat cgcactgtgg
 841 tttcccagga cttttatcct cagcaagggt cgtgactggc tttcgggtgt tgtaaacggc
 901 tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca cgccattgat
 961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
 1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaaatacac
 1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
 1141 attgatgatc tttctaagta cgatgttcaa gtgagagcag cagtgaagtc catgtgcaga
 1201 gaggcagggt tctggagtga gtggagccaa cctatttatg tgggtaagta gcttatgttt
 1261 attttacatt ggcagccttc cttgtgatca aaaaaggtaa tcccagaaac gtaccggttc
 1321 actcgtgggt cttaaaatgg tttcatatct ctattgtgac taattttctc tcggtctact
 1381 gctttttcaa tcagggaatag atttgccatg aagccagtga agtttttaag tgtctaggct
 1441 tctcattagt gccaaacttc ctgagacctg tgccgttttt ttttccaagt tttgtttcta
 1501 cttctatcca ttttttaaat taaacttttt attttgaaat aattatcaca ctcaaacgt
 1561 gtgggaagaa ataatagaga tcctgtgtct ctttcatcca gttttcctca agggtaacat

1621 cttacaaaac tatagtacaa tagtggaata gaatatttgg tggt

(2) INFORMATION FOR SEQ ID NO:2552:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1981 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2552:

```

1  ccgctgcttc tcacgcgat gccaccgcat ttctcaggcc aggcacattg agcattgggtc
61  ctgtgcctga cgctatgcta gatgctgggg ttgcagccac gagcatagac acgacagaca
121 cggctcctgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacaggc
181 tacagattgt tttagattga agtttccctg catgttcact catctttaaa tcctcatagc
241 aaaaaggata tgatcatcgt ggcgcgatga ttactcatcc ttttgggggc cactgagata
301 ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt caatttcacc
361 attaaagtta ctggtttggc tcaagttctt ttacaatgga aaccaaacc tgatcaagag
421 caaaggaatg ttaatctaga atatcaagtg aaaataaacg ctccaaaaga agatgactat
481 gaaaccagaa tcaactgaaag caaatgtgta accatcctcc acaaaggctt ttcagcaagt
541 gtgcggacca tcctgcagaa cgaccactca ctactggcca gcagctgggc ttctgtgtaa
601 ttcatgccc caccagggtc tcctggaacc tcaattgtga atttaacttg caccacaaac
661 actacagaag acaattattc acgtttaagg tcataccaag tttcccttca ctgcacctgg
721 cttgttggca cagatgcccc tgaggacacg cagtattttc tctactatag gtatggctct
781 tggactgaag aatgccaaaga atacagcaaa gacacactgg ggagaaatat cgcatgctgg
841 tttcccagga cttttatcct cagcaaaggg cgtgactggc tttcgggtgt tgtaacggc
901 tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca cgccattgat
961 caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct ctctatccaa
1021 tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt aaaaatacac
1081 aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt catctcaata
1141 attgatgac tttctaagta cgatgttcaa gtgagagcag cagtgaagtc catgtgcaga
1201 gaggcagggc tctggagtga gtggagccaa cctattttat tgggaaatga tgaacacaag
1261 cccttgagag agtggtttgt cattgtgatt atggcaacca tctgcttcat cttgttaatt
1321 ctctcgctta tctgtaaaat atgtcattta tggatcaagt tgtttccacc aattccagca
1381 caaaaaagta atatcaaaaga tctctttgta accactaact atgagaaagc tgggtccagt
1441 gagacggaaa ttgaagtcac ctgttatata gagaagcctg gagttgagac cctggaggat
1501 tctgtgtttt gactgtcact ttggcatcct ctgatgaact cacacatgcc tcaagtccctc
1561 agtgaagaag acaggggatgc tggctcttgg ctaagagggtg ttcagaattt aggaacact
1621 caatttacct gcgaagcaat acaccagac acaccagtct tgtatctctt aaaagtatgg
1681 atgcttcac caaatcgctt cacctacagc aggggaagtg actcatccaa gcattttgcc
1741 atgttttttc tccccatgcc gtacagggta gcacctctc acctgccaat ctttgcaatt
1801 tgccttgact acctcagact tctattcaca acagacagct ttaaggcta acgtccagct
1861 gtatttactt ctggctgtgc cgtttggtcg ttaagctgc caattgtagc actcagctac
1921 catctgagga agaaagcatt ttgcatcagc ctggagtga ccatgaactt ggattcaaga
1981 ctgtcttttc tatagcaa

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(2) INFORMATION FOR SEQ ID NO:2553:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1381 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2553:

```

1  gtcttttgaa aggatctgcc gctgcttctc atcgcattgg caccgcattt ctcaggccag
61  gcacattgag cattggtcct gtgcctgacg ctatgctaga tgctggggtt gcagccacga
121 gcatacacac gacagacacg gtcctcgcca tcttctgttg agtactggtc ggaacaagag
181 gatcgtctgt agacaggata tgatcatcgt ggcgcgatga ttactcatcc ttttgggggc
241 cactgagata ctgcaagctg acttacttcc tgatgaaaag atttcacttc tcccacctgt
301 caatttcacc attaaagtta ctggtttggc tcaagttctt ttacaatgga aaccaaacc
361 tgatcaagag caaaggaatg ttaatctaga atatcaagtg aaaataaacg ctccaaaaga
421 agatgactat gaaaccagaa tcaactgaaag caaatgtgta accatcctcc acaaaggctt
481 ttcagcaagt gtgcggacca tcctgcagaa cgaccactca ctactggcca gcagctgggc
541 ttctgtgaa cttcatgccc caccagggtc tcctggaacc tcaattgtga atttaacttg
601 caccacaaac actacagaag acaattattc acgtttaagg tcataccaag tttcccttca
661 ctgcacctgg cttgttggca cagatgcccc tgaggacacg cagtattttc tctactatag
721 gtatggctct tggactgaag aatgccaaaga atacagcaaa gacacactgg ggagaaatat
781 cgcatgctgg tttcccagga cttttatcct cagcaaaggg cgtgactggc ttgctgtgct
841 tgtaacggc tccagcaagc actctgctat caggcccttt gatcagctgt ttgcccttca
901 cgccattgat caaataaatc ctccactgaa tgtcacagca gagattgaag gaactcgtct
961 ctctatccaa tgggagaaac cagtgtctgc ttttccaatc cattgctttg attatgaagt
1021 aaaaatacac aatacaagga atggatattt gcagatagaa aaattgatga ccaatgcatt

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1081 catctcaata attgatgac tttctaagta cgtgttcaa gtgagagcag cagtgaagctc
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 1201 gcttatgttt attttacatt ggcagccttc cttgtgatca aaaaaggtaa tcccagaaac
 1261 gtaccggttc actcgtgggt cttaaaatgg tttcatatct ctattgtgac taattttctc
 1321 tcggtctact gccttttcaa tcaggaatag atttgccatg aagccagtga agtttttaag
 1381 tgtctaggct tctcattagc gccac

(2) INFORMATION FOR SEQ ID NO:2554:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1981 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2554:

1 cgggtcctcgc catcttctgt tgagtactgg tcggaacaag aggatcgtct gtagacagga
 61 tatgatcatc gtggcgcatg tattactcat ccttttgggg gccactgaga tactgcaagc
 121 tgacttactt cctgatgaaa agatttcact tctcccacct gtcaatttca ccattaaagt
 181 tactggtttg gctcaagttc ttttacaatg gaaaccaa cctgatcaag agcaaaaggaa
 241 tgtaaatcta gaatatcaag tgaaaataaa cgctccaaaa gaagatgact atgaaaccag
 301 aatcactgaa agcaaatgtg taaccatcct ccacaaaggc ttttcagcaa gtgtgaggac
 361 catcctgcag aacgaccact cactactggc cagcagctgg gcttctgctg aacttcatgc
 421 cccaccaggg tctcctggaa cctcagttgt gaatttaact tgcaccacaa acactacaga
 481 agacaattat tcacgtttta ggtcatacca agtttccctt cactgcacct ggcttgttg
 541 cacagatgcc cctgaggaca cgcagtattt tctctactat aggtatggct cttggactga
 601 agaatgccaa gaatacagca aagacacact ggggagaaat atcgcatgct ggtttcccag
 661 gacttttatc ctcagcaaa ggcgtgactg gcttgcggtg cttgttaacg gctccagcaa
 721 gcactctgct atcaggccct ttgatcagct gtttgcctt cagccattg atcaataaaa
 781 tcttccactg aatgtcacag cagagattga aggaactcgt ctctctatcc aatgggagaa
 841 accagtgtct gcttttccaa tccattgctt tgattatgaa gtaaaaaaac acaatacaag
 901 gaattgatat ttgcagatag aaaaattgat gaccaatgca ttcattcaa taattgatga
 961 tctttctaag tacgatgttc aagtgaagc agcagtgaag tccatgtgca gagaggcagg
 1021 gctctggagt gagtggagcc aacctattta tgtgggaaat gatgaacaca agcccttgag
 1081 agagtgggtt gtcattgtga ttatggcaac catctgcttc atcttgttaa ttctctcgt
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 1261 aattgaagtc atctgttata tagagaagcc tggagttag accctggagg attctgtgtt
 1321 ttgactgtca ctttggcacc ctctgatgaa ctcacacatg cctcagtgcc tcagtga
 1381 gaacagggat gctggctctt ggctaagagg tgttcagaat ttaggcaaca ctcaatttac
 1441 ctgcgaagca atacaccag acacaccagt cttgtatctc ttaaaagtat ggatgcttca
 1501 tccaaatcgc ctcacctaca gcagggaagt tgactcatcc aagcattttg ccatgtttt
 1561 tctccccatg ccgtacaggg tagcacctcc tcacctgcca atctttgcaa tttgcttgac
 1621 tcacctcaga cttttcattc acaacagaca gcttttaagg ctaacgtcca gctgtattta
 1681 cttctggctg tgcccgtttg gctgttttaag ctgccaaattg tagcactcag ctaccatctg
 1741 aggaagaaag cattttgcat cagcctggag tgaatcatga acttgattc aagactgtct
 1801 tttctatagc aagtgaagc cacaattcc tcacccctt acattctaga atgatcttt
 1861 tctaggtaga ttgtgtatgt gtgtgtatga gagagagaga gagagagaga gagagagaga
 1921 gagaaattat ctcaagctcc agaggcctga tccaggatac atcatttgaa accaactaat
 1981 ttaaaagcat aatagagcta atatat

(2) INFORMATION FOR SEQ ID NO:2555:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11167 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2555:

1 tagatgctgg ggttgcagcc acgagcatag acacgacaga cacggtcctc gccatcttct
 61 gttgagtact ggtcggaaaca agaggatcgt ctgtagacag gatatgatca tcgtggcgca
 121 tgtattactc atccttttgg gggccactga gatactgcaa gctgacttac ttctgtatga
 181 aaagatttca cttctccac ctgtcaattt caccattaaa gttactggtt tggctcaagt
 241 tcttttaca tggaacacaa atcctgatca agagcaaaagg aatgttaac tagaatatca
 301 agtgaaaata aacgctccaa aagaagatga ctatgaaacc agaactcagt aaagcaaatg
 361 tgtaaccatc ctccacaaag gcttttcagc aagtgtgcgg accatcctgc agaacgacca
 421 ctcactactg gccagcagct gggcttctgc tgaacttcat gccccaccag ggtctcctgg
 481 aacctcaatt gtgaatttaa cttgcaccac aaacactaca gaagacaatt attcagttt
 541 aaggctcatc caagtttccc ttcactgac ctggcttgtt ggcacagat cccctgagga
 601 cagcagtat tttctctact ataggatagg ctcttgact gaagaatgcc aagaatacac
 661 caaagacaca ctggggagaa atatcgcatg ctggtttccc aggactttta tctcagcaa
 721 agggcgtgac tggcttgagg tgcttgtaa cggtccagc aagcactctg ctatcaggcc

781 ctttgatcag ctgtttgccc ttacagccat tgatcaaata aatcctccac tgaatgtcac
841 agcagagatt gaaggaactc gtctctctat ccaatgggag aaaccagtgt ctgcttttcc
901 aatccattgc tttgattatg aagtaaaaat acacaatata aggaatggat atttgagat
961 agaaaaattg atgaccaatg cattcatctc aataattgat gatctttcta agtacgatgt
1021 tcaagtgaga gcagcagtga gctccatgtg cagagaggca gggctctgga gtgagtggag
1081 ccaacctatt tatgtgggaa atgatgaaca caagcccttg agagagtggg ttgtcattgt
1141 gattatggca accatctgct tcatcttgtt aattctctcg cttatctgta aaatatgtca
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1321 taaggctactt ggggtgtacct ggagtggtt taagctcttt acattaatta attaatcttc
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1441 tgtcctagggt cacacaatta ggaaatgaca gatctggcag tctattttca ggcagtctat
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1561 tgacttttct agtgtgttta cctgttttgc atctctcaag gatgtgacct gaagctgtag
1621 ccaggtggaa ttgtaccaca gccctgacat gaacacctga tggcagctgc tgggttggag
1681 cctagacaaa aacatgaaga accatggctg ctgcctgagc ccatcgtgct gtaattatag
1741 aaaaccttct aagggaagaa tatgctgata ttttcagat aagtaccctt tttataaaaa
1801 tcttccaagt tagccctcga ttttccatgt aaggaaacag aggcctttgag ataattgtctg
1861 tctcctaagg gacaaagcca ggacttgatc ctgtcttaaa aatgcataat gtagtacttc
1921 ttccatcaaa ggtagacatg cactaaggga cagggttttg cttggtatca gaatacattt
1981 ttaaaagctg tgtaagaatt gaacgggctg tactaggggg tata
1 gatctttcta agtacgatgt tcaagtgaga gcagcagtga gctccatgtg cagagaggca
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1 ccgtgcttc tcatcgcatg gccaccgcat ttctcaggcc aggcacattg agcattgggtc
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841 accagtgtct gcttttccaa tccattgctt tgattatgaa gtataaaatc acaatacaag
901 gaattgatat ttgcagatag aaaaattgat gaccaatgca ttcattctaa taattgatga
961 tctttctaag tacgatgttc aagtgcagagc agcagtgcag tccatgtgca gagaggcagg
1021 gctctggagt gactggagcc aacctattta tgtgggaaat gatgaacaca agcccttgag
1081 agagtgggtt gtcattgtga ttatggcaac catctgcttc atcttgttaa ttctctcgt
1141 tatctgtaaa atatgtcatt tatggatcaa gttgtttcca ccaattccag caccaaaaag
1201 taatatcaaa gatctctttg taaccactaa ctatgagaaa gctgggtcca gtgagacgga
1261 aattgaagtc atctgttata tagagaagcc tggagttagg accctggagg attctgtgtt
1321 ttgactgtca ctttggcatc ctctgatgaa ctacacatg cctcagtgcc tcagtgaaaa
1381 gaacagggat gctggctctt ggctaagagg tgttcagaat ttaggcaaca ctcaatttac
1441 ctgcgaagca atacaccagc acacaccagt cttgtatctc ttaaaagtat ggatgcttca
1501 tccaaatcgc ctcacctaca gcagggaagt tgactcatcc aagcattttg ccatgttttt
1561 tctcccctag ccgtacaggg tagcacctcc tcacctgcca atctttgcaa tttgcttgac
1621 tcacctcaga cttttcattc acaacagaca gcttttaagg ctaacgtcca cgtgtattta
1681 cttctggctg tgcccgtttg gctgtttaag ctgccaattg tagcactcag ctaccatctg
1741 aggaagaaag cattttgcat cagcctggag tgaatcatga acttggtatc aagactgtct
1801 tttctatagc aagtgcagagc cacaattcc tcacccccct acattctaga atgatctttt
1861 tctaggtaga ttgtgtatgt gtgtgtatga gagagagaga gagagagaga gagagagaga
1921 gagaaattat ctcaagctcc agaggcctga tccaggatac atcatttgaa accaactaat
1981 ttaaaagcat aatagagcta atatat
```

(2) INFORMATION FOR SEQ ID NO:2556:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5161 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2556:

```
1 gaattcagta acccaggcat tattttatcc tcaagtctta ggttgggttg agaaagataa
61 caaaaagaaa catgattgtg cagaaacaga caaacctttt tggaaagcat ttgaaaatgg
121 cattccccct ccacagtgtg ttcacagtgt gggcaaatc actgctctgt cgtactttct
181 gaaaatgaag aactgttaca ccaagggtga ttatttataa attatgtact tgcccagaag
241 cgaacagact tttactatca taagaacctc tcttgggtgt gctctttatc tacagaatcc
301 aagacctttc aagaaagggtc ttggattctt ttcttcagga cactaggaca taaagccacc
361 tttttatgat ttgttgaaat ttctcactcc atcccccttg ctgatgatca tgggtcctca
421 gaggtcagac ttggtgtcct tggataaaga gcatgaagca acagtggctg aaccagagtt
481 ggaacccaga tgctctttcc actaagcata caactttcca ttagataaca cctccctccc
541 accccaacca agcagctcca gtgcaccact ttctggagca taaacatacc ttaactttac
601 aacttgagtg gccttgaata ctgttcttat ctggaatgtg ctgttctctt tcatcttctt
661 ctattgaagc cctcctatcc ctcaatgcct tgctccaact gcctttggaa gattctgctc
721 ttatgcctcc actggaatta atgtcttagt accacttgct tattctgcta tatagtcatg
781 ccttacattg ctttcttctt ctgatagacc aaactcttta aggacaagta cctagtctta
841 tctatttcta gatccccac attactcaga aagttactcc ataatgttt gtggaactga
901 tttctatgtg aagacatgtg ccccttccat ctgttaacta gcattagaaa acaaatctt
961 ttgaaaagtt gtagtatgcc cctaagagca gtaacagttc ctgaaactc tctaaaatgc
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1021 ttagaaaaag atttatttta aattacctcc ccaataaaat gattggctcg cttatcttca
1081 ccatcatgat agcatctgta attaactgaa aaaaaataat tatgccatta aaagaaaatc
1141 atccatgatc ttgttctaac acctgccact ctagtactat atctgtcaca tgggtctatga
1201 taaagttatc tagaataaaa aaagcataca attgataatt caccaaattg tggagcttca
1261 gtattttaaa tgtatattaa aattaaatta ttttaaagat caaagaaaaa tttcgtcata
1321 ctccgtatth gataaggaac aaataggaag tgtgatgact caggtttgccc ctgaggggat
1381 gggccatcag ttgcaaatcg tggaaatttcc tctgacataa tgaaaagatg aggggtgcata
1441 agttctctag taggggtgatg atataaaaaag ccaccggagc actccataag gcacaaactt
1501 tcagagacag cagagcacac aagcttctag gacaagagcc aggaagaaac caccggaagg
1561 aaccattctc actgtgtgta aacatgactt ccaagctggc cgtggctctc ttggcagcct
1621 tcttgatttc tgcagctctg tgtgaaggta agcacatctt tctgacctac agcggtttcc
1681 tatgtctaaa tgtatcctt agatagcaaa gctattcttg atgctttggt aacaaacatc
1741 ctttttatth agaaacagaa tataatctta gcagtcaatt aatgttaaat tgaagattta
1801 gaaaaaacta tatataaacg ttaggaaata taaaggtttg atcaatatag atattctgct
1861 tttataatth ataccaggta gcatgcatat atttaacgta aataagtaat ttatagtatg
1921 tcttattgag aaccacgggt acctatatta tgtattaata ttgagttgag caaggtaact
1981 cagacaatth cactccttgt agtatttcat tgacaagcct cagatttgc tattaattct
2041 gtctggttta aagataacct gattatagac caggcatgta taacttattt atatatctt
2101 gttaattctt tctgaaggca atttctatgc tggagagtct tagcttgcct actataaata
2161 acactgtggt atcacagagg attatgcaat attgaccaga taaaaatacc atgaagatgt
2221 tgatattgta caaaaagaac tctaactctt atataggaag ttgttcaatg ttgtcagtta
2281 tgactgtttt ttaaaacaaa gaactaactg aggtcaaggg ctaggagata ttcaggaaatg
2341 agttcactag aaacatgatg ccttccatag tctccaaata atcatatttg aattagaagg
2401 aagtagctgg cagagctgtg cctgttgata aaatcaatcc ttaatcactt tttcccccac
2461 caggtgcagt tttgccaagg agtgctaaag aacttagatg tcagtgcata aagacatact
2521 ccaaactttt ccaccccaaa tttatcaaag aactgagagt gattgagagt ggaccacact
2581 gcgccaacac agaaattatg taagtacttt aaaaaagatt agatattttg ttttagcaaa
2641 cttaaaatta aggaagggtg aaatatthtag gaaagttcca ggtgttagga ttacagtatg
2701 aaatgaaca aaacaaaata aaaatatthg tctacatgac atttaaatat ggtagcttcc
2761 acaactacta taaatgttat tttggactta gactttatgc ctgacttaag gaatactgat
2821 ttgaatgcaa aaactaaata ttaacttgaa ccatttcttt ctatttctag tghtaaagctt
2881 tctgatggaa gagagctctg tctggacccc aaggaaaact ggtgtcagag ggtgtgtgag
2941 aagtttttga agaggttaagt tatatattht ttaatttaaa tttttcattt atcctgagac
3001 atataatcca aagtcagcct ataaatttct ttctgttgc taaaatcgtc attaggtatc
3061 tgcctttttg gttaaaaaaa aaggaatagc atcaatagtg agtttgttgt acttatgacc
3121 agaaagacca tacatagttt gccaggaaa ttctgggttt aagcttgtgt cctatactct
3181 tagtaaaagt ctttgtcact ccagtagtg tctattttha gatgataatt tctttgatct
3241 ccctatttat agttgagaat atagagcatt tctaacacat gaatgtcaaa gactatattg
3301 acttttcaag aacctactt tccttcttat taaacatagc tcatctttat atttttaatt
3361 ttatttttag gctgagaatt cataaaaaaa ttcattctct gtggtatcca agaatacagt
3421 aagatgccag tgaaacttca agcaaatcta cttcaacact tcatgtattg tgtgggtctg
3481 ttgtagggtt gccagatgca atacaagatt cctggttaaa tttgaatttc agtaaacaaat
3541 gaatagtttt tcattgtacc atgaaatata cagaacatac ttatatgtaa agtattattt
3601 atttgaatct acaaaaaaca caaaataatt tttaaatata aggattttcc tagatattgc
3661 acgggagaat atacaaatag caaaattggg ccaagggccca agagaatatc cgaactttaa
3721 tttcaggaaat tgaatgggtt tgctagaatg tgatatttga agcatcacat aaaaatgatg
3781 ggacaataaa ttttgccata aagtcaaatt tagctggaaa tcttggtatt ttttctgtta
3841 aatctggcaa ccctagtctg ctagccagga tccacaagtc cttgttccac tgtgccttgg
3901 tttctccttt atttctaagt ggaaaaagta ttagccacca tcttacctca cagtgatgtt
3961 gtgaggacat gtggaagcac ttttaagttt ttcatacata cataaattat tttcaagtgt
4021 aacttattaa cctatttatt atttatgtat ttatttaagc atcaaatatt tgtgcaagaa
4081 tttggaaaaa tagaagatga atcattgatt gaatagttat aaagatgtta tagtaaaattt
4141 attttatttt agatatttaa tgatgtttta ttagataaat ttcaatcagg gtttttagat
4201 taaacaaaca aacaattggg taccaggtta aattttcatt tcagatatac aacaaataat
4261 ttttttagtat aagtacatta ttgtttatct gaaattttta ttgaactaac aatcctagtt
4321 tgatactccc agtcttgtca ttgccagctg tgttggtagt gctgtgttga attacggaat
4381 aatgagttag aactattaaa acagccaaaa ctccacagtc aatattagta atttcttgct
4441 ggttgaaact tgtttattat gtacaaatag attcttataa tattatttaa atgactgcat
4501 ttttaaatat aaggctttat atttttaact ttagtgtttt tatgtgtctt ccaaattttt
4561 tttactgttt ctgattgtat ggaaatataa aagtaaatat gaaacattta aaatataatt
4621 tgttgtcaaa gtaatcaagt gtttgtcttt tttttagttt tagcttattg ggattctctt
4681 tgtttatatt taaaattata ctttgattta gaaaacataa atgcttcccc ttagcatttt
4741 gttatggaaa attacaaact tttattttta gaaaacagaa ctcttttcca gaaataggtt
4801 acaaacagta gtgtcctcca cagaatgttg gaaatgtttt caactcccc ctgtactata
4861 tcttgctaata agtctgtct tcagattttc attaacgggt ttgtatgtct gtgcacttta
4921 gcatagctgg acattaaaga ggaaagagag tacatattht aagttgttta tcagtaactg
4981 aggagtaaaa ctgataaatg tgaggcaaaag aagtttaaaa tatggttaaa gcctaagcat
5041 atttgcaaac aaatcaaca atactctgag aagtaaaaac ataattattt aattaacaaa

5101 tttcagtggg taaattttat aacaaattag acacagtgtg aaataaaatt agaaaactag
 5161 aaaatagaac aaaagaaact tctggaattc a

(2) INFORMATION FOR SEQ ID NO:2557:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1981 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2557:

1 tattcatcaa gtgccctcta gctgttaagt cactctgata tctgactgca gctcctactg
 61 ttggacacac ctggccggtg cttagttag atcaaaccat tgctgaaact gaagaggaca
 121 tgtcaaatat tacagatcca cagatgtggg attttgatga tctaaatttc actggcatgc
 181 cactgcgaga tgaagattac agccctgtga tgctagaaac tgagacactc aacaagtatg
 241 ttgtgatcat cgccatagcc ctagtgttcc tgctgagcct gctgggaaac tccctggtga
 301 tgctggtcat ctatatacagc agggctggcc gctccgtcac tgatgtctac ctgctgaacc
 361 tggccttggc cgacctactc tttgccctga ccttgcccat ctgggcccgc tccaaggtga
 421 atggctggat ttttggcaca ttcctgtgca aggtgtctc actcctgaag gaagtcaact
 481 tctacagtgg catcctgctg ttggcctgca tcagtgtgga ccgttacctg gccattgtcc
 541 atggcacacg cacactgacc cagaagcgct acctgggtcaa gtttgtttgt cttggctgct
 601 ggggactgtc tatgaatctg tccctgcctc tcttcctttt ccgcccaggct taccatccaa
 661 acaattccag tccagtgttc tatgaggtcc tgggaaatga cacagcaaaa tggcggtatg
 721 tgttgccgat cctgcctcac acctttggct tcactgtgcc gctgtttgtc atgctgttct
 781 gctatggatt caccctgcgt aactgttta agggcccat ggggcagaag caccgagcca
 841 tgagggtcat ctttgcctgc gtcctcatct tccctgcttg ctggctgccc tacaacctgg
 901 tccctgctggc agacaccctc atgaggaccc aggtgatcca ggagagctgt gagcgccgca
 961 acaacatcgg ccgggcccctg gatgccactg agattctggg atttctccat agctgcctca
 1021 accccatcat ctacgccttc atcgcccaaa attttcgcca tggattcctc aagatccctg
 1081 ctatgcatgg cctggctcagc aaggagtctt tggcacgtca tctgtttacc tctacactt
 1141 ctctgctctg caatgtctct tccaacctct gaaaaccatc gatgaaggaa tatctcttct
 1201 cagaaggaaa gaataaccaa caccctgagg ttgtgtgtgg aagggtatct ggctctggac
 1261 aggcactatc tgggttttgg ggggacgcta taggatgtgg ggaagttagg aactgtgtgc
 1321 ttcaggggcc acaccaacct tctgaggagc tgttgaggta cctccaagga ccggcctttg
 1381 cacctccatg gaaacgaagc accatcattc ccgttgaacg tcacatcttt aaccactaa
 1441 ctggctaatt agcatggcca catctgagcc ccgaatctga cattagatga gagaacaggg
 1501 ctgaagctgt gtcctcatga gggctggatg ctctcggtga cctcacagg agcatctct
 1561 caactctgag tgtaagcgt tgagccacca agctgtgtgg tctgtgtgct ctgatccgag
 1621 ctacaggggg tggttttccc atctcaggtg tgttcagtg tctgctggag acattgaggc
 1681 aggcactgcc aaaacatcaa cctgccagct ggccttgtga ggagctggaa acacatgttc
 1741 cccttggggg tggtggatga acaaagagaa agagggtttg gaagccagat ctatgccaca
 1801 agaaccctct ttaccctcat gaccaacatc gcagacacat gtgctggcca cctgctgagc
 1861 cccaagtga acgagacaag cagcccttag cccttccctc ctgcagcttc caggctggcg
 1921 tgcagcatca gcatccctag aaagccatgt gcagccacca gtccattggg caggcagatg
 1981 ttcctaataa agcttctgtt ccgtgct

(2) INFORMATION FOR SEQ ID NO:2558:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1741 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2558:

1 cctacaggtg aaaagcccag cgaccagtc aggatttaag tttacctcaa aaatggaaga
 61 ttttaacatg gagagtgaac gctttgaaga tttctggaaa ggtgaagatc ttagtaatta
 121 cagttacagc tctaccctgc ccccttttct actagatgcc gcccctatgt aaccagaatc
 181 cctggaaatc aacaagtatt ttgtggtcat tatctatgcc ctggtattcc tgctgagcct
 241 gctgggaaac tccctcgtga tgctggtcat ctatatacagc agggctggcc gctccgtcac
 301 tgatgtctac ctgctgaacc tagccttggc cgacctactc tttgccctga ccttgcccat
 361 ctgggcccgc tccaaggtga atggctggat ttttggcaca ttcctgtgca aggtggtctc
 421 actcctgaag gaagtcaact tctatagtgg catcctgcta ctggcctgca tcagtgtgga
 481 ccgttacctg gccattgtcc atgccacacg cacactgacc cagaagcgct acttggtcaa
 541 attcatatgt ctacgcatct ggggtctgtc cttgtcctg gccctgcctg tcttactttt
 601 ccgaaggacc gtctactcat ccaatgttag ccagccctgc tataggaca tgggcaacaa
 661 tacagcaaac tggcggtatg tgttacggat cctgccccag tcccttggct tcatctgtgc
 721 actgctgata atgctgttct gctacggatt caccctgcgt acgctgttta aggccacat
 781 ggggcagaag caccgggcca tgggggtcat ctttgcctgc gtcctcatct tccgtctttg
 841 ctggctgccc tacaacctgg tccgtgtggc agacaccctc atgaggaccc aggtgatcca
 901 ggagacctgt gagcgccgca atcacatcga ccgggctctg gatgccaccg agattctggg
 961 catccttcac agctgcctca accccctcat ctacgccttc attggccaga agtttcgcca

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1021 tggactcctc aagattctag ctatacatgg cttgatcagc aaggactccc tgcccaaaaga
1081 cagcaggcct tcctttgttg gctcttcttc agggcacact tccactactc tctaagacct
1141 cctgcctaag tgcagccccg tggggttcct cccttctctt cacagtcaca ttccaagcct
1201 catgtccact ggttcttctt ggtctcagtg tcaatgcagc ccccatgttg gtcacaggaa
1261 gcagaggagg ccacgttctt actagtcttc cttgcatggg ttagaaagct tgccctgggtg
1321 cctcaccctt tgccataatt actatgtcat ttgctggagc tctgcccctc ctgcccctga
1381 gcccatggca ctctatgttc taagaagtga aaatctacac tccagtgaga cagctctgca
1441 tactcattag gatggctagt atcaaaaaga aaaaaatcag gctggccaac gggatgaaac
1501 cctgtctcta ctaaaaaaac aaaaaaaaaa aaaaaatta gccgggctg gtggtgagtg
1561 cctgtaarca cagctacttg ggaggctgag atgggagaat cacttgaacc cgggaggcag
1621 aggttgagc gagccgagat tgtgcccctg cactccagcc tgagcgacag tgagactctg
1681 tctcagtcga tgaagatgta gaggagaaac tggaaactct gagcgttgct gggggggatt
1741 gtaaaatggt

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(2) INFORMATION FOR SEQ ID NO:2559:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1801 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2559:

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1 ggatccaaagt aggattgagt gtcctgtagt tattatccac agggaaacatt ctacaaagtt
61 ttgggagact gtaatgtcat gggaaatgca agaataatgtg tccagcatgg aagggaatca
121 gtatggaagt cttttgataa attgtggcat ttatcactaa cattgcctca aaactttaga
181 ctacctgcca tatacaaat agaggtgaaa attacttcca tgtaatatat aagccaacac
241 aaagaatcct atcccagttt cttggatgga taggcaagaa tctgggtaag gtttattgtg
301 caataatcct cttctctctt ctataggcca ggatttaagt ttacctcaaa aatggaaaat
361 tttgctggg aaaattacat gtgggaagac atcttcagtg gagattttag taattacagt
421 ttcagctatg accctacccc ttttctacta gattctgccc catgttgccc agaatcccta
481 gaaatcaatt atgttttgat catcatctat gccctgatgt ttctactgaa cgtgatgtga
541 aactccctgc cgatgctggg catcttattc agctgagtc gccactgtca ccgatgtcta
601 cctgctgacc ctggccttg cggacctgtt ctttccctg acattgcccc tcttgctgc
661 ctccaagatg aatggctgga tttttggcac aatctgtgcc aggtggtcta gctcctgaag
721 gaagtcaact tctacggtgg tattctacta ctggcctgcc gcagcatgga ctgttacctg
781 gccattgtcc atgccacacg cacactgacc cagcagcgcc acttggtcaa gttcatatgt
841 ctgggtttgt ggaacctgtt cctgttactg tccctacgca tcttgctttt ccgaaggacc
901 ttctacccat ccaatgttag ccagctctgc tatgaggaca tgggcaacaa tacagcaaac
961 tgggtgatgc tgttacggat cctgcccag tcctttggct tcatcgtgcc gctgcgatca
1021 tgctgttctg ctacagattc accctgcata cgctgtttaa ggcccatatg gggcagaagc
1081 actggaccat gtgggtcatc tttgtgttg tctcatttt cctgctctgc tggctgcctt
1141 acaacctggt cctgctggca gacacctca tgggaacca gatgaccaat gagacctgtg
1201 agcgcgcaaa cgacatcaac caggccctgg atgccactga gattctgggc atccttcaca
1261 gctacctcaa tccccctac tacgccttca ttggccagaa gttttgcat ggacttctca
1321 agattatagc catacacggc ttgatcagca aggactccct gcccaaagac agcaggcctt
1381 cttttgttg ctcttcttca gggcacactt ccactactct ctaagacctc ttgcctaagt
1441 gcagtccctg ggggttcttc cttctcttcc acagtcacat tccaagcctc atgtccacta
1501 gctcttcttg gtctcagtg cagtgcagcc cccactgttg tcgcaggaag cacaggaggc
1561 cagcttctta ctagtctccc ttgcatgatt tagaaagcct gccctggtac ctcaccctt
1621 gccataatta ctacatcact tgtggaagct ctgtccctcc tgcccttgag ctcatggcac
1681 tctatgttct aagaagtga aatctacact ccagtgaag agctctgcat actcattagg
1741 atggttaatg tcagaagaaa gaaaatcata aaatagaagg tgtccacaaa ggtgcagatg
1801 ataagtg

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(2) INFORMATION FOR SEQ ID NO:2560:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1501 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2560:

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1 gtcaggattt aagtttacct caaaaatgga agattttaac atggagagtg acagctttga
61 agatttcttg aaagggtgaag atcttagtaa ttacagttac agctctaccc tgccccctt
121 tctactagat gccgccccat gtgaaccaga atccctggaa atcaacaagt attttgggt
181 cattatctat gccctggtat tctgctgag cctgctggga aactccctcg tgatgctggt
241 catcttatac agcagggtcg gccgctccgt cactgatgtc tacctgtga acctagcctt
301 gccgcagcta ctctttgccc tgaccttgcc catctgggccc gccccaagc tgaatggctg
361 gatttttggc acattcctgt gcaagggtgg ctactcctg aagggaagtca acttctatag
421 tggcatcctg ctactggcct gcatcagtg ggaccgttac ctggccattg tccatgccac
481 acgcacactg acccagaagc gctacttggc caaattcata tgtctcagca tctggggtct

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541 gtccttgctc ctggccctgc ctgtcttact tttccgaagg accgtctact catccaatgt
601 tagcccagcc tgctatgagg acatgggcaa caatacagca aactggcgga tgctgttacg
661 gacccctgcc cagtcctttg gcttcacgtg gccactgctg atcatgctgt tctgtctacgg
721 attcaccctg cgtacgctgt ttaaggccca catggggcag aagcaccggg ccatgcggtt
781 catcttttgc gtcgtcctca tcttctgtct ttgctggctg cctacaacc ttgtctgtct
841 ggcagacacc ctcatgagga cccagggtgat ccaggagacc tgtgagcgcc gcaatcacat
901 cgaccgggct ctggatgcca ccgagattct gggcatcctt cacagctgcc tcaacccctt
961 catctacgcc ttcattggcc agaagtttct ccatggactc ctcaagattc tagctataca
1021 tggcttgatc agcaaggact cctgcccaca agacagcagg ccttcctttg ttggctcttc
1081 ttcagggcac acttccacta ctctctaaga cctcctgcct aagtgcagcc cgtgggggtc
1141 ctcctttctc ttcacagtca cattccaagg ctcatgtcca ctggttcttc ttggtctcag
1201 tgtcaatgca gcccctattg tggtcacagg aagcagagga gggcaggttc ttactagttt
1261 cccttgcatg gtttagaaag cttgccctgg tgcctcacc cttgccataa ttactatgtc
1321 atttgctgga gctctgccc tctgcccct gagcccatgg cactctatgt tctaagaagt
1381 gaaaatctac actccagtga gacagctctg catactcatt aggatggcta gtatcaaaa
1441 aaagaaaatc aggctggcca acgggatgaa accctgtctc tactaaaaat acaaaaaaaa
1501 aaaaaaaaaa

```

(2) INFORMATION FOR SEQ ID NO:2561:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2221 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2561:

```

1 gggagaaaca tagggaatag aaaataagta agaaggggac acctgggaac aggtttgcct
61 tcttgcatct tgcttaatgc tggcccttcc ctgaatgtct aagaccaacc tgggtcccac
121 atccaaatgc acagacacag ctgaggatgg agaaggctaa agagggacag aggttagagac
181 ataggctgag aggaggcagt ttaggttga gctagggcta aggtgttttc cccatattcc
241 atcttaccac acactcagga caggccttag agttgtggaa ggtggagaac actgggaagc
301 caacctccga agaagaccag gttggagtca aaggaggaaag gagagctctc attgccaac
361 caacagggaa gccaaaggata tcccagtaac tgctctcaca tcattgatga gaatgccttg
421 aatccgagct actaaatcac atttcttccc ttctaaccctt ccagtttagat caaaccattg
481 ctgaactga agaggacatg tcaaataatta cagatccaca gatgtgggat tttgatgatc
541 taaatttcac tggcatgcca cctgcagatg aagattacag cccctgtatg ctagaactg
601 agacactcaa caagtatggt gtgatcatcg cctatgccc agtgttctg ctgagcctgc
661 tgggaaactc cctggtgatg ctggtcatct tatacagcag ggtcggccgc tccgtcactg
721 atgtctacct gctgaacctg gccttggccg acctactctt tggcctgacc ttgcccctct
781 gggccgcctc caaggtgaat ggctggattt ttggcacatt cctgtgcaag gtggtctcac
841 tctgaagga agtcaacttc tacagtggca tctgtctgtt ggctgcatc agtgtggacc
901 gttacctggc cattgtccat gccacacgca cactgaccca gaagcgtcac ttggtcaagt
961 ttgtttgtct tggctgctgg ggactgtcta tgaatctgtc cctgcccctt ttcttttcc
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1081 cagcaaatg gcgatgggtg ttgaggatcc tgcctcacac ctttggcttc atcgtgccgc
1141 tgtttgtcat gctgttctgc tatggattca cctgctgtac actgtttaag gccacatgg
1201 ggcagaagca ccgagccatg agggatcatc ttgctgtcgt cctcatcttc ctgctttgct
1261 ggctgcccta caacctggtc ctgctggcag acacctcat gaggacccag gtgatccagg
1321 agagctgtga gcgcgcgaac aacatcgccc gggccctgga tgccactgag attctgggat
1381 ttctccatag ctgcctcaac cccatcatct acgccttcat cggccaaaat tttcgcctg
1441 gattcctcaa gatcctggct atgcatggcc tggctcagcaa ggagttcttg gcacgtcatc
1501 gtgttacctc ctacacttct tegtctgtca atgtctctc caacctctga aaaccatcga
1561 tgaaggaata tctcttctca gaaggaaaga ataaccaaca ccctgaggtt gtgtgtggaa
1621 ggtgatctgg ctctggacag gcactatctg ggttttgggg ggacgctata ggatgtgggg
1681 aagttaggaa ctggtgtctt caggggccac accaaccttc tgaggagctg ttgaggtacc
1741 tccaaggacc ggcctttgca cctccatgga aacgaagcac catcattccc gttgaacgtc
1801 acatctttaa cccactaact ggctaattag catggccaca tctgagcccc gaatctgaca
1861 ttagatgaga gaacagggtc gaagctgtgt cctcatgagg gctggatgct ctcgttgacc
1921 ctacagggag catctcctca actctgagtg ttaagcgttg agccaccaag ctggtggctc
1981 tgtgtgctct gatccgagct caggggggtg gttttcccat ctgaggtgtg ttgagtgctc
2041 tgctggagac attgaggcag gcactgccc aacatcaacc tgccagctgg ccttgtgagg
2101 agctggaaac acatgttccc cttgggggtg gtggatgaac aaagagaaag aggttttga
2161 agccagatct atgccacaag aacccctttt acccccatga ccaacatcgc agacacatgt
2221 gctggccacc tgctgagccc caagt

```

(2) INFORMATION FOR SEQ ID NO:2562:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9245 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2562:

```
1  tattcatcaa gtgccctcta gctgttaagt cactctgac tctgactgca gctcctactg
61  ttggacacac ctggccggtg cttcagttag atcaaaccat tgctgaaact gaagaggaca
121 tgtcaaatat tacagatcca cagatgtggg attttgatga tctaaatttc actggcatgc
181 cacctgcaga tgaagattac agccctgtga tgctagaaac tgagacatc aacaagtatg
241 ttgtgatcat cgcctatgcc ctagtgttcc tgctgagcct gctgggaaac tccctggtga
301 tgctggtcat cttatacagc agggtcggcc gctccgtcac tgatgtctac ctgctgaacc
361 tggccttggc cgacctactc tttgccctga ccttgcccat ctgggcccgc tccaaggtga
421 atggcttgat ttttggcaca ttccctgtgca aggtgtgtct actcctgaag gaagtcaact
481 tctacagtgg catcctgctg ttggcctgca tcagtgtgga ccgttacctg gccattgtcc
541 atggcacacg cacactgacc cagaagcgct acttggtcaa gtttgtttgt cttggtcgtc
601 ggggactgtc tatgaatctg tccctgccct tcttcctttt ccgccaggct taccatccaa
661 acaattccag tccagtttgc tatgaggtcc tgggaaatga cacagcaaaa tggcggtatg
721 tgttgcggtc cctgcctcac acctttggct tcactgtgcc gctgtttgtc atgtgtttct
781 gctatggatt caccctgcgt acaactgttta aggccacat ggggcagaag caccgagcca
841 tgagggtcat ctttgcctgc gtcctcatct tctgctttg ctggctgccc tacaacctgg
901 tccctgtggc agacaccctc atgaggacc aggtgatcca ggagagctgt gagcgccgca
961 acaacatcgg ccgggcccgt gatgccact agattctggg atttctccat agctgcctca
1021 accccatcat ctacgccttc atcgccaaa attttcgcca tggattcctc aagatcctgg
1081 ctatgcatgg cctggtcagc aaggagtctc tggcacgtca tcgtgttacc tctacactt
1141 cttcgtctgt caatgtctct tccaacctct gaaaaccatc gatgaaggaa tatctcttct
1201 cagaaggaaa gaataaccaa caccctgagg ttgtgtgtgg aaggtgatct ggctctggac
1261 aggcactatc tgggttttgg ggggacgcta taggatgtgg ggaagttagg aactggtgtc
1321 ttcaggggcc acaccaacct tctgaggagc tgttgaggta cctccaagg cggcctttg
1381 caccctcatg gaaacgaagc accatcttc ccgttgaaac tcacatcttt aaccactaa
1441 ctggctaatt agcatggcca catctgagcc ccgaatctga cattagatga gagaacaggg
1501 ctgaagctgt gtcctcatga gggctggatg ctctcgttga cctcacagg agcatctcct
1561 caactctgag tgtaagcgt tgagccacca agctggtggc tctgtgtgct ctgatccgag
1621 ctcagggggg tggttttccc atctcaggtg tgttgagtg tctgctggag acattgaggc
1681 aggcactgcc aaaacatcaa cctgccagct ggccttgtga ggagctggaa acacatgttc
1741 cccttggggg tgggtgatga acaaagagaa agagggttg gaagccagat ctatgccaca
1801 agaaccctct ttaccctcat gaccaacatc gcagacacat gtgctggcca cgtctgagc
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1981 ttcctaataa agcttctgtt ccgtgct
1  cctacaggtg aaaagcccag cgaccagtc aggtttaag tttacctcaa aaatggaaga
61  ttttaacatg gagagtgaac gctttgaaga tttctgaaa ggtgaagatc ttagtaatta
121 cagttacacg tctaccctgc ccccttttct actagatgcc gcccatgtg aaccagaatc
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241 gctgggaaac tccctcgtga tgctggtcat cttatacagc agggtcggcc gctccgtcac
301 tgatgtctac ctgctgaacc tagccttggc cgacctactc tttgccctga ccttgcccat
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421 actcctgaag gaagtcaact tctatagtgg catcctgcta ctggcctgca tcagtgtgga
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661 tacagcaaac tggcggtatg tgttacggat cctgccccag tcccttggct tcactgtgcc
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961 catccttcac agctgcctca accccctcat ctacgccttc attggccaga agtttcgcca
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1081 cagcaggcct tcccttgttg gctcttcttc agggcacact tccactactc tctaagacct
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1261 gcagaggagg ccacgttctt actagtcttc cttgcatggt ttagaaagct tgccctggtg
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1441 tactcattag gatggctagt atcaaaaagaa agaaaatcag gctggccaac gggatgaaac
1501 cctgtctcta ctaaaaatac aaaaaaaaata gcccggcgct ggtgtgagtg
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1681 tctcagttca tgaagatgta gaggagaaac tggaaactct gagcgttgct gggggggatt
1741 gtaaaatggt
1  ggatccaaat aggtattgagt gtcctgtagt tattatccac agggaacatt ctacaaagtt
61  ttgggagact gtaatgtcat gggaaatgca agaataatgt tccagcatgg aagggaatca
```

121 gtatggaagt cttttgataa attgtggcat ttatcactaa cattgcctca aaactttaga
181 ctacctgcca tatacaaatt agaggtgaaa attacttcca tgtaatatat aagccaacac
241 aaagaatcct arcccagttt cttggatgga taggcaagaa tctgggtaag gtttattgtg
301 caataatcct cttctctctt ctataggcca ggatttaagt ttacctcaaa aatggaaaaat
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421 ttcagctatg accctacccc ttttctacta gattctgccc catgttgccc agaatcccta
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721 gaagtcaact tctacggtgg tattctacta ctggcctgcc gcagcatgga ctgttacctg
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1681 tctatgttct aagaagtga aatctacact ccagtggagc agctctgcat actcattagg
1741 atgggtaatg tcagaagaaa gaaaatcata aaatagaagg tgtccacaaa ggtgcagatg
1801 ataagtg
1 gtcaggattt aagtttacct caaaaatgga agattttaac atggagagtg acagctttga
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121 tctactagat gccgccccat gtgaaccaga atccctggaa atcaacaagt attttgtggt
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301 ggccgacctc ctctttgccc tgaccttgcc catctgggcc gcctccaagg tgaatggctg
361 gatttttggc acattcctgt gcaaggtggt ctactcctg aaggaaagtca acttctatag
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481 acgcacactg acccagaagc gctacttggt caaattcata tgtctcagca tctggggtct
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721 attacacctg cgtacgctgt ttaaggccca catggggcag aagcaccggg ccattgctgg
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901 cgaccgggct ctggatgcca ccgagattct gggcatcctt cacagctgcc tcaacccctt
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1 gggagaaaca tagggaatag aaaataagta agaaggggac acctgggaac aggtttgcct
61 tcttgcatth tgcttaatgc tggcccttcc ctgaatgtct aagaccaacc tggctccccc
121 atccaaatgc acagacacag ctgaggatgg agaaggctaa agagggacag aggttagagac
181 atagctgtag aggaggcagt ttaggttga gctagggcta aggtgttttc cccatattcc
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361 caacagggaa gccaaggata tcccagtaac tgctctcaca tcattgatga gaatgccttg
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481 ctgaaactga agaggacatg tcaaatatta cagatccaca gatgtgggat tttgatgatc
541 taaatttcac tggcatgcca cctgcagatg aagattacag cccctgtatg ctagaaactg
601 agacactcaa caagtattgt gtgatcatcg cctatgccct agtgttctgt ctgagcctgc
661 tgggaaactc cctggtgatg ctggtcatct tatacagcag ggtcggccgc tccgtcactg
721 atgtctacct gctgaacctg gccttgcccg acctactctt tgcctgacc ttgccatct

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781 gggccgcctc caaggtgaat ggctggattt ttggcacatt cctgtgcaag gtggtctcac
841 tcctgaagga agtcaacttc tacagtggca tcctgctgtt ggcctgcac agtgtggacc
901 gttacctggc cattgtccat gccacacgca cactgaccca gaagcgtaac ttggtcaagt
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1381 ttctccatag ctgctcaac cccatcatct acgcttcat cggccaaaat tttcgccatg
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1681 aagttaggaa ctggtgtctt caggggccac accaaccttc tgaggagctg ttgaggtacc
1741 tccaaggacc ggcctttgca cctccatgga aacgaagcac catcattccc gttgaacgtc
1801 acatctttaa ccactaact ggctaattag catggccaca tctgagcccc gaatctgaca
1861 ttagatgaga gaacagggtt gaagctgtgt cctcatgagg gctggatgct ctggttgacc
1921 ctacaggag catctctca actctgagt ttaagcgttg agccaccaag ctggtggctc
1981 tgtgtgctct gatccgagct caggggggtg gttttcccat ctgaggtgtg ttgcagtgtc
2041 tgctggagac attgaggcag gcactgcca aacatcaacc tgccagctgg ccttgtgagg
2101 agctggaac acatgttccc cttgggggtg gtggatgaac aaagagaaag agggtttggg
2161 agccagatct atgccacaag aaccccttt acccccatga ccaacatcgc agacacatgt
2221 gctggccacc tgctgagccc caagt

```

(2) INFORMATION FOR SEQ ID NO:2563:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 541 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2563:

```

1 ccgctgtcaa gatgcttctg gccatggctc ttacctctgc cctgctctctg tgetccgtgg
61 caggccaggg gtgtccaacc ttggcgggga tcctggacat caacttctc atcaacaaga
121 tgcaggaaga tccagcttcc aagtgccact gcagtgtctaa tgtgaccagt tgtctctgtt
181 tgggcattcc ctctgacaac tgcaccagac catgcttcag tgagagactg tctcagatga
241 ccaataccac catgcaaac agataccac tgattttcag tcgggtgaaa aaatcagttg
301 aagtactaaa gaacaacaag tgtccatatt tttcctgtga acagccatgc aaccaaacca
361 cggcaggcaa cgcgctgaca tttctgaaga gtcttctgga aattttccag aaagaaaaga
421 tgagagggat gagaggcaag atatgaagat gaaatattat ttatcctatt tattaattt
481 aaaaagcttt ctctttaagt tgctacaatt taaaaatcaa gtaagctact ctaaatcagt
541 atcagttgtg attatttgtt taacattgta tgtctttatt ttgaaataaa t

```

(2) INFORMATION FOR SEQ ID NO:2564:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2761 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2564:

```

1 atatatatat gcataatagt ctctgtgtaa cagtaagtgg atgcagtaac tgggtgtgagg
61 gcaacttgga gagtgtgctt ggaggcacag agatgctcag ggctgcctgg actgcctcca
121 tgatggtggc ctgctctgta ttaggtgagt gttcaggaaa ggtgagggca gggcagccca
181 cagcttcaca gtggcccagg gaagcagggc aggcaggcta tgaggcctag taggcatctg
241 ggccagactt tgacactgag gccatggaat ggggtgggct ctgagaacag acccaagtga
301 tcatgggctg aaggctatgt ccacagatcc aaggcgggat aggctgtact gggcagtgat
361 gtcagccagg ctccccagcg ggactggggg tgtcaggggc agctctgtcc caggtggcag
421 acactggttt cccctcctgc tctcacaaac ggcctgttac caggtgttgt ctgagctgtg
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(2) INFORMATION FOR SEQ ID NO:2565:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17041 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2565:

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(2) INFORMATION FOR SEQ ID NO:2566:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 19802 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2566:

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(2) INFORMATION FOR SEQ ID NO:2567:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2041 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2567:

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121 taggaagggc ctgcgcgtcc ggggacctt cgcttccctt tctgtcgcg gacctccctg
181 gccccctcga gatctccatg gcgacgcgc gcgcgcccc caacaggaaa gccttaggcg
241 gcgcggcttg gtgctcggag acttaagagt accagcccc tcgacgtggt ggatgtcgag
301 tcttggggtc acacgcacag gcggtggcca agcaaacacc cgctcatatt tagtgcatga
361 gcttgggttc gagttgccg agcctcgcgc gtagggcagg ggttcgagc ccccttctcc
421 ctgcctcgcc tctgcgcctg gggctgtctg cctcagtttc ccagcgacag gcagggattt
481 cgagcgtccc cctccccctc ctctcaaga tccaagctag ctgcctcagt tcccccgcg
541 agcctgggac gccagcggag gggctcggcg cgtagggatc acgcagcttc cttccttttt
601 ctgggagctg taaagacgcc tccgccaacg ccgaaagggg aagcgaggag gccgcggggg
661 tgagtgcctt cgggtgtaga gagaggacgc cgatttcccc ggacgtgggt agaccgcgct
721 tcgtcactcc caggttagc ggtcgccggg aggtgcctgg ctctgctctg gccgttctc

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781 gagaaatgcc cgtgtcagct aggtgtggac gtgacctagg gggaggggca tccctcagtg
841 gagggagccc ggggaggatt cctgggcccc caccagggca gggggctcat ccaactcgatt
901 aaagaggcct gcgtaagctg gagagggagg acttgagttc ggacccccctc gcagcctgga
961 gtctcagttt accgctttgt gaaatggaca caataacagt ctccactctc cggggaagtt
1021 ggcagtatctt aaaagtactt aataaacgcc tttagcgcggt gtagaccgtg attcaagctt
1081 agcctggccg ggaacggga ggcgtggagg ccgggagcag ccccggggt catcgccctg
1141 ccaccgccgc ccgattgctt tagcttgga attccggagc tgaagcggcc agcgaggag
1201 gatgaccctc tcggcccggg caccctgtca gtccggaaat aactgcagca tttgttccgg
1261 aggggaaggc gcgaggtttc cgggaaagca gcaccgcccc ttggccccc ggtggctagc
1321 gctataaagg atcacgcgcc ccagtcgacg ctgagctcct ctgctactca gagtgtcaac
1381 ctccagcctc ctatggctcc cagcagcccc cggcccgccg tggccgcat cctggtcctg
1441 ctcggggctc tgttcccagg tgagtcgggg tggggattgc cgtcggggca gttctccgaa
1501 gcccgggagg accggctccc gggtcaggtc atgcatgctt aggtagctgt ttatgggaag
1561 gaggggctag agacagcgat tgaaagcaac agccagtagg ttcgaatcca gaccctgcat
1621 acctccacgt gtggccttgg gctatagatt gcagctttaa aaaagggtag ggggttgag
1681 atggagggga gggcggggcc tcgttttgtt gccaggccg gtcttgaact ccgggggtct
1741 agccttacct cctgcctcag cctcccaggt agctgggatg aggtgtgaac cacgccttgc
1801 ttggctagat tgcgtctctt acagtttctc agctgtaaaa cgggaaacgt tatagcggcc
1861 acctggcagg gtatcttggc ccagcgacgc acctggcccc aggactcgat catgatggtt
1921 tgggaacttg gctctgtgcc aaccaacaa ggcttaaggg acccccaccc ccctcaagat
1981 gtatattctg ttcctcatcc tctctgcccc tggggaagtc cagggtctgt tctacttggg
2041 gg

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(2) INFORMATION FOR SEQ ID NO:2568:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2941 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2568:

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1 ggcggccagt cgacgtgag ctctctgtct actcagagtt gcaacctcag cctcgctatg
61 gctcccagca gccccggcc cgcgtgccc gactccttg tctgtctcgg ggctctgttc
121 ccaggacctg gcaatgccc gacatctgtg tccccctcaa aagtcactct gccccgggga
181 ggctccgtgc tggtagatg cagcacctcc tgtgaccagc ccaagtgtgt gggcatagag
241 accccgttgc ctaaaaagga gttgctcctg cctgggaaca accggaaggt gtagaactg
301 agcaatgtgc aagaagatag ccaaccaatg tgctattcaa actgccctga tgggcagtca
361 acagctaaaa cttcctcac cgtgtactgg actccagaac gggtggaact ggcacccctc
421 ccctcttggc agccagtggg caagaacctt accctacgct gccagggtga ggggtgggca
481 ccccgggcca acctcacgt ggtgctgtc cgtggggaga aggagctgaa acgggagcca
541 gctgtggggg agcccgtga ggtcacgacc acggtgctgg tgaggagaga tcaccatgga
601 gccaatctct cgtgcccgcac tgaactggac ctgcccggcc aagggtgga gctgtttgag
661 aacacctcgg cccctacca cctccagacc tttgtcctgc cagcgactgc cccacaactt
721 gtcagcccc gggctcctaga ggtggacagc caggggaccg tggctctgtt cctggacggg
781 ctgttcccag tctcggaggc ccaggtccac ctggcactgg gggaccagag gttgaacccc
841 acagtcaact atggcaacga ctcttctcgc gccaaaggct cagtcagtgt gaccgagag
901 gacgagggca cccagcggt gacgtgtgca gtaatactgg ggaaccagag ccaggagaca
961 ctgcagacag tgaccatcta cagctttccg gcgcccacg tgattctgac gaagccagag
1021 gtctcagaag ggaccgaggt gacagtgaag tgtgaggccc accctagagc caaggtgacg
1081 ctgaatgggg ttccagccca gccactgggc ccgagggccc agctcctgct gaagggcacc
1141 ccagaggaca acgggcgcag cttctcctgc tctgcaaccc tggaggtggc cggccagctt
1201 atacacaaga accagaccgc ggagcttctg gtctgtatg gccccgact ggacgagagg
1261 gattgtccgg gaaactggac gtggccagaa aattcccagc agactccaat gtgccaggtc
1321 tgggggaacc cattgcccga gctcaagtgt ctaaaaggat gcactttccc actgccatc
1381 ggggaatcag tgactgtcac tcgagatctt gagggcacct acctctgtc ggccaggagc
1441 actcaagggg aggtcacccg cgaggtgacc gtgaatgtgc tctcccccg gtatgagatt
1501 gtcacatca ctgtggtagc agcgcagtc ataagggca ctgcaggcct cagcacgtac
1561 ctctataacc gccagcgga gatcaagaaa tacagactac aacaggccca aaaagggacc
1621 cccatgaaac cgaacacaca agccacgcct ccctgaacct atcccgggac agggcctctt
1681 cctcgccctt ccatatttg tggcagtggt gccacactga acagagtggg agacatatgc
1741 ctgcagcta cactaccgc ccctgggacg ccggaggaca gggcattgtc ctacgtcaga
1801 tacaacagca tttggggcca tggtagctgc acacataaaa cactaggcca cgcattctgat
1861 ctgtagtcac atgactaagc caagaggaa gagcaagact caagacatga ttgatggatg
1921 ttaaagtcta gcctgatgag aggggaagtg gtgggggaga catagcccca ccatgaggac
1981 atacaactgg gaaatactga aacttgctgc ctattgggta tgctgaggcc cacagactta
2041 cagaagaagt ggccctccat agacatgtgt agcatcaaaa cacaaggcc cacacttctt
2101 gacggatgcc agcttgggca ctgctgtcta ctgaccccaa cccttgatga tatgtattta
2161 ttcatttgtt attttaccag ctatttattg agtgtctttt atgtaggcta aatgaacata
2221 ggtctctggc ctcacggagc tcccagtcga tgtcacattc aaggtcacca ggtacagttg
2281 tacaggttgt acactgcagg agagtgcctg gcaaaaagat caaatggggc tgggacttct

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2341 cattggccaa cctgcctttc cccagaagga gtgatttttc tatcgscaca aaagcactat
 2401 atggactggt aatggttcac aggttcagag attaccaggt gaggccttat tccctccctc
 2461 cccccaaac tgacaccttt gttagccacc tccccacca catacatttc tgccagtggt
 2521 cacaatgaca ctcagcggtc atgtctggac atgagtggcc agggaaatag cccaagctat
 2581 gcctgtcctt cttgtcctgt ttgcatttca ctgggagctt gcactattgc agctccagtt
 2641 tcctgcagtg atcagggtcc tgcaagcagt ggggaagggg gccaaaggtat tggaggaacc
 2701 cctcccagct ttggaagggt catccgcgtg tgtgtgtgtg tgtatgtgta gacaagctct
 2761 cgctctgtca cccaggctgg agtgacgtgg tgcaatcatg gttcactgca gtcttgacct
 2821 tttgggctca agtgatcctc ccacctcagc ctcctgagta gctgggacca taggctcaca
 2881 acaccacacc tggcaaatat gatttttttt ttttttttca gagacggsgt ctcgcaacat
 2941 tgcccagact tcctttgtgt tagttaataa agctttctca actgcc

(2) INFORMATION FOR SEQ ID NO:2569:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3001 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2569:

1 gctataagga tcacgcgccc cagtcgacgc tgagctcctc tgctactcag agttgcaacc
 61 tcagcctcgc tatggtctcc agcagccccc ggcccgcgct gcccgccactc ctggtcctgc
 121 tcggggctct gttcccagga cctggcaatg cccagacatc tgtgtccccc tcaaaagtca
 181 tcctgccccg gggaggctcc gtgctgggtga catgcagcac ctcctgtgac cagcccaagt
 241 tgttgggcat agagaccccg ttgcctaaaa aggagtgtct cctgcctggg aacaaccgga
 301 aggtgtatga actgagcaat gtgcaagaag atagccaacc aatgtgctat tcaaactgcc
 361 ctgatgggca gtcaacagct aaaaccttcc tcaccgtgta ctggactcca gaacgggtgg
 421 aactggcacc cctccctctt tggcagccag tgggcaagaa ccttacctta cgctgccagg
 481 tggaggggtg ggcaccccg gccaacctca ccgtggtgct gctccgtggg gagaaggagc
 541 tgaacggga gccagctgtg ggggagcccg ctgaggtcac gaccacgggt ctggtgagga
 601 gagatcacca tggagccaat ttctcgtgcc gcactgaact ggacctgcgg cccaagggc
 661 tggagctgtt tgagaacacc tcggccctct accagctcca gaccttctgc ctgccagcga
 721 cccccccaca acttgcagc ccccggttcc tagagtggtg cagcagggg accgtggtct
 781 gttccctgga cgggctgttc ccagtctcgg aggccaggt ccacctggca ctgggggacc
 841 agaggttgaa ccccacagtc acctatggca acgactcctt ctcggccaag gcctcagta
 901 gtgtgaccgc agaggacgag ggcacccagc ggctgacgtg tgcagtaaat ctggggaacc
 961 agagccagga gacactgcag acagtgaacca tctacagctt tccggcgccc aactgattc
 1021 tgacgaagcc agaggtctca gaagggaccg aggtgacagt gaagtgtgag gccacccta
 1081 gagccaaggt gacgtgaat ggggttccag cccagccact gggcccgagg gccagctcc
 1141 tgctgaaggc caccacagag gacaacgggc gcagcttctc ctgctctgca accctggagg
 1201 tggccggcca gcttatacac aagaaccaga cccgggagct tcgtgtcctg tatggcccc
 1261 gactggacga gagggattgt ccgggaaact ggacgtggcc agaaaaattc cagcagactc
 1321 caatgtgcca ggcttggggg aaccatttgc ccgagctcaa gtgtctaaag gatggcaact
 1381 tcccactgcc catcggggaa tcagtgaact tcactcgaga tcttgaggg accctacct
 1441 gtcggggccag gagcactcaa ggggaggtca cccgcaaggt gaccgtgaat gtgtctccc
 1501 cccggtatga gattgtcatc atcactgtgg tagcagccgc agtcataatg ggcaactgag
 1561 gcctcagcac gtacctctat aaccgccagc ggaagatcaa gaaatacaga ctacaacagg
 1621 cccaaaaagg gaccccatg aaaccgaaca cacaagccac gcctcccrta acctatccc
 1681 ggacagggcc tcttctcctg ccttcccata ttggtggcag tgggtgccca ctgaacagag
 1741 tggagacat atgcatgca gctacacctt ccggccctgg gacgcccagg gacagggcat
 1801 tgtcctcagt cagatacaac agcatttggg gccatggtac ctgcacacct aaaacactag
 1861 gccacgcac tgatctgtag tcacatgact aagccaagag gaaggagcaa gactcaagac
 1921 atgattgatg gatgttaaag tctagcctga tgagagggga agtgggtggg gagacatagc
 1981 cccaccatga ggacatacaa ctgggaaata ctgaaacttg ctgcttattg ggtatgctga
 2041 ggccccacag acttacagaa gaagtggccc tccatagaca tgtgtagcat caaaacaaa
 2101 agggccacac ttcttgacgg atgccagctt gggcactgct gtctactgac cccaacctt
 2161 gatgatattg atttattcat ttgttatttt accagctatt tattgagttg cttttatgta
 2221 ggctaaatga acataggtct ctggcctcac ggagctccca gtccatgtca cattcaaggt
 2281 caccaggtac agttgtacag gttgtacact gcaggagagt gcctggcaaa aagatcaaat
 2341 ggggctggga cttctcattg gccaacctgc ctttccccag aaggagtgat tttctatcg
 2401 gcacaaaagc actatatgga ctggtaattg ttcacaggtt cagagattac ccagttaggc
 2461 cttattcctc ccttcccccc aaaactgaca cctttgttag ccacctccc acccacatac
 2521 atttctgcca gtgttcacaa tgacactcag cggctatgct tggacatgag tgcccaggga
 2581 atatgcccac gctatgcctt ctctcttctg cctgttttga tttcactggg agcttgact
 2641 attgcagctc cagtttctct cagtgtatcg ggtcctgcaa gcagtgggga agggggccaa
 2701 ggtattggag gactccctcc cagctttgga agcctcatcc gcgtgtgtgt gtgtgtgtgt
 2761 atgtgtagac aagctctcgc tctgtcacc aggtggagt gcagtgggtg aatcatgggt
 2821 cactgcagtc ttgacctttt gggctcaagt gatcctccca cctcagcctc ctgagtagct
 2881 gggaccatag gctcacaaca ccacacctgg caaatttgat tttttttt tttttcagag
 2941 acggggtctc gcaacattgc ccagacttcc tttgtgttag ttaataaagc tttctcaact

3001 gcc

(2) INFORMATION FOR SEQ ID NO:2570:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1801 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2570:

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1  ctcagcctcg ctatggctcc cagcagcccc cgccccgcgc tgccccgact cctggtcctg
61  ctcggggctc tgttcccagg acctggcaat gcccagacat ctgtgtcccc ctcaaaagtc
121 atcctgcccc ggggaggctc cgtgctggtg acatgcagca cctcctgtga ccagcccaag
181 ttgttgggca tagagacccc gttgcctaaa aaggagtgtc tctgcctgga gaacaaccgg
241 aaggtgtatg aactgagcaa tgtgcaagaa gatagccaac caatgtgcta ttcaaaactgc
301 cctgatgggc agtcaacagc taaaaccttc ctaccctgtg actggactcc agaacgggtg
361 gaactggcac ccctcccctc ttggcagcca gtgggcaaga accttacctt acgctgccag
421 gtggagggtg gggcaccctc ggccaacctc accgtggtgc tgctccgtgg ggagaaggag
481 ctgaaacggg agccagctgt gggggagccc gctgaggtca cgaccacggt gctggtgagg
541 agagatcacc atggagccaa tttctcgtgc cgcactgaac tggacctgcy gccccaaggg
601 ctggagctgt ttgagaacac ctcgcccccc taccagctcc agacctttgt cctgccagcg
661 actccccac aacttgtcag cccccgggtc cttagaggtg acacgcaggg gaccgtggtc
721 tgttccctgg acgggctgtt cccagctctc gaggcccagg tccacctggc actgggggac
781 cagaggttga accccacagt cacttatggc aacgactcct tctcgcccaa ggcctcagtc
841 agtgtgaccg cagaggacga gggcaccctc cggctgacgt gtgcagtaat actggggaac
901 cagagccagg agacactgca gacagtgaac atctacagct ttccggcgcc caacgtgatt
961 ctgacgaagc cagaggtctc agaagggacc gaggtgacag tgaagtgtga ggcccaccct
1021 agagccaagg tgacgtgaa tggggttcca gcccagccac tggggccgag ggcccagctc
1081 ctgctgaagg ccaccccaga ggacaacggg cgcagcttct cctgctctgc aacctggag
1141 gtggccggcc agcttataca caagaaccag acccgggagc ttctgtctct gtatggcccc
1201 cgactggacg agagggattg tccgggaaac tggacgtggc cagaaaattc ccagcagact
1261 ccaatgtgcc aggtctgggg gaaccatttg cccgagctca agtgtctaaa ggatggcact
1321 tccccactgc ccatcgggga atcagtgaac gtcactcgag atcttgaggg cacttacctc
1381 tgtcggggcca ggagcactca aggggagggtc acccgcgagg tgaccgtgaa tgtgtctctc
1441 cccccgtatg agattgtcat catcactgtg gtagcagccg cagtcataat gggcactgca
1501 ggccctcagc cgtacctcta taaccgcccag cggaagatca agaaatacac actacaacag
1561 gcccaaaaag ggacccccat gaaaccgaac acacaagcca cgctccctg aacctatccc
1621 gggacagggc ctcttctctc gccttcccat attggtggca gtggtgccac actgaacaga
1681 gtggaagaca tatgccatgc agctacacct accggccctg ggacgcccga ggaacaggga
1741 ttgtcctcag tcagatacaa cagcatttgg ggccatggta cctgcacacc taaaacacta
1801 ggccacgcat ctgatctgta gtcacatgac taagccaaga ggaagg

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(2) INFORMATION FOR SEQ ID NO:2571:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9784 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2571:

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1  aattcagaac tcctcagccc cccaagaaaa aaatatcccc gtggaaattc ctttttaattg
61  accgaggcgg gggaaatatg cgtctctgga tggccagtga ctgcagcccc ccttccccga
121 taggaagggc ctgcgcgtcc ggggacctt cgttccctt cctgtgcgc gacctccctg
181 gcccctcgga gatctccatg gcgacgcgc gcgcgcccc caacaggaaa gcttaggcg
241 gcgcggcttg gtgctcggag acttaagagt acccagcccc tcgacgtggt ggatgtcgag
301 tcttggggtc acacgcacag gcgtggcca agcaaacc cgtcatatt tagtgcata
361 gcctgggttc gagttgccgg agcctcgcgc gtagggcagg ggttcgagcg ccccttctcc
421 ctgcctcgcc tctgcgcctg ggggtgctg cctcagttt ccagcgacag gcagggattt
481 cgagcgtccc cctccccctc ctctgcaaga tccaagctag ctgcctcagt ttcccccgcg
541 agcctgggac gccagcggag gggctcggcg cgtagggatc acgcagcttc ctctctttt
601 ctgggagctg taaagacgcc tccgccaacg ccgaaagggg aagcgaggag gccgccgggg
661 tgagtgcctt cgggtgtaga gagaggacgc cgatttcccc ggacgtggtg agaccgcgct
721 tcgtcactcc cacggttagc ggtcgcggg aggtgcctg ctctgctctg gccgttctc
781 gagaaatgcc cgtgtcagct aggtgtggac gtgacctagg gggaggggca tccctcagtg
841 gagggagccc ggggaggatt cctgggcccc caccagga gggggctcat ccactcgatt
901 aaagaggcct gcgtaagctg gagagggagg acttgagttc ggacccctc gcagcctgga
961 gtctcagttt accgcttgtg gaaatggaca caataacagt ctccactctc cggggaagtt
1021 ggcagtattt aaaagtactt aataaacgcc ttagcgcggt gtagaccgtg attcaagctt
1081 agcctggccg ggaaacggga ggcgtggagg ccgggagcag ccccggggt catcgccctg
1141 ccaccgcccg ccgattgctt tagcttgga attccggagc tgaagcgcc agcgagggag
1201 gatgaccctc tcggccccgg caccctgtca gtccggaat aactgcagca tttgttccgg

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1261 aggggaagggc gcgaggtttc cgggaaagca gcaccgcccc ttggcccccga ggtggctagc
1321 gctataaagg atcacgcgcc ccagtcgacg ctgagctcct ctgctactca gaggtagaac
1381 ctacgcctcg ctatggttcc cagcagcccc cggcccgccg tgcccgcaact cctggctcctg
1441 ctccgggctc tgttcccagg tgagtcgggg tggggattgc cgtcgggcca gttctccgaa
1501 gcccgggagg accggtctcc gggtcaggtc atgcatgctt aggtagctgt ttatgggaag
1561 gaggggctag agacagcgat tgaaagcaac agccagtagg ttcgaatcca gaccctgcat
1621 acctccacgt gtggccttgg gctatagatt gcagctttaa aaaagggtag ggggttggag
1681 atggagggga gggcggggcc tcgttttgtt gcccaggccg gtcttgaact ccgggggtct
1741 agccttacct cctgcctcag cctcccgagt agctgggatg aggtgtgaac cagccttgc
1801 ttggctagat tgcgtctctt acagtttctc agctgtaaaa cgggaaacgt tatacgggcc
1861 acctggcagg gtatcttggc ccagcgcagc acctggcccc aggactcgat catgatggtt
1921 tgggaacttg gctctgtgcc aaccaacaa ggcttaaggg acccccaccc cctcaagat
1981 gtatatctg ttcctcatcc tctctgcccc tggggaagtc cagggtctgt tctacttggg
2041 gg
1 gcgccccagt cgacgtgag ctctctgtct actcagagtt gcaacctcag cctcgtctatg
61 gctcccagca gccccggcc cgcgtgccc gcaactcctg tccgtctcgg ggcctctgtt
121 ccaggacctg gcaatgccc gacatctgtg tccccctcaa aagtcacctt gccccgggga
181 ggctccgtgc tggtagatg cagcacctcc tgtgaccagc ccaagtgtt gggcatagag
241 acccggttg ctaaaaagga gttgctcctg cctgggaaca accggaagg ttatgaaactg
301 agcaatgtgc aagaagatg ccaaccaatg tgctattcaa actgccctga tgggcagtca
361 acagctaaaa ccttctcac cgtgtactgg actccagaac ggggtggaact ggcacccctc
421 cctcttggc agccagtgg caagaacctt accctacgct gccaggtgga ggggtgggca
481 ccccgggcca acctcaccgt ggtgtgtctc cgtggggaga aggagctgaa acgggagcca
541 gctgtggggg agcccgctga ggtcacgacc acggtgtctg tgaggagaga tcaccatgga
601 gccaatttct cgtgcgcac tgaactggac ctgcccggcc aagggtctga gctgtttgag
661 aacacctcgg cccctacca gctccagacc tttgtcctgc cagcgaactc cccacaactt
721 gtcagcccc ggtcctaga ggtggacacg caggggaccg tggctctgtt cctggacggg
781 ctgttcccag tctcggagg ccaggtcac ctggcactgg gggaccagag gttgaacccc
841 acagtcacct atggcaacga ctctctctcg gccaaaggct cagtcagtgt gaccgcagag
901 gacgagggca ccagcggct gacgtgtgca gtaatactgg ggaaccagag ccaggagaca
961 ctgcagacag tgaccatcta cagctttccg gcgcccacg tgattctgac gaagccagag
1021 gtcctcagaag ggaccgaggt gacagtgaag tgtgaggccc accctagagc caaggtgacg
1081 ctgaatggg ttcagccca gccactgggc ccgaggggcc agctcctgct gaagggccac
1141 ccagaggaca acgggcgcag cttctcctgc tctgcaaccc tggaggtggc cggccagctt
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(2) INFORMATION FOR SEQ ID NO:2572:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4681 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2572:

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121 tttaacttg gacacagagg agctgacagc cttccgtgtg gacagcgctg gggttggaga
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361 caccagccct tcccagctgc tggcctgcgg cccaccctg caccacagt gcgggaggaa
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481 ggtgtccagg caggagtgc caagacagga gcaggacatt gtgttcctga tcgatggctc
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601 ccagtctcag agaccagca cccagtttct cctgatgcag ttctccaaca aattccaac
661 acacttcaact ttcgaggaat tcaggcgac gtcaaaccct ctcagcctgt tggcttctgt
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4561 gttaatacac attaaaacat cgcacaaaaa cgatgcattt accgctcctt gggaaataat
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4681 aaaaaaaaaa aaaaaaaaaa aaaa

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(2) INFORMATION FOR SEQ ID NO:2573:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4621 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2573:

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1981 tcgggagcag gtggtctctg agcagaccct ggtacagtcc aacatctgcc ttacattga
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2521 caccttctcc caccgccgag gactgtccta ccgctacgtg gcagagggcc agaacaagg
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4501 tacctgaaaa aatgccaaag actagattat ttttttaaaa agcgtacttt aaatgttgt
4561 gttaatacac attaaaacat cgcacaaaaa cgatgcattt accgctcctt gggaaataat
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(2) INFORMATION FOR SEQ ID NO:2574:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2281 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2574:

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61 aaggtcagca gctgccggga atgcactcag tcggggcccg gctgcacctg gtgccagaag
121 ctgaacttca cagggccggg ggatcctgag tccattcgtc gcgacacctg gccacagctg
181 ctcatgaggg gctgtgcggc tgacgacatc atggacccca caagcctcgc tgaaacccag
241 gaagaccaca atgggggcca gaagcagctg tccccacaaa aagtgcagct ttacctgcga
301 ccaggccagg cagcagcgtt caacgtgacc ttccggcggg ccaagggcta ccccatcgac
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601 aagctgacca acaactccaa ccagtttcag accgaggtcg ggaagcagct gatttccgga
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721 gaaatcggtt ggcgcaacgt cacgcggtg ctggtgtttg cactgatga cggcttccat
781 ttcgcgggcg acggaagct gggcgccatc ctgaccccca acgacggccg ctgtcacctg
841 gaggacaact tgcacaagag gagcaacgaa ttcgactacc catcggtggg ccagctggcg
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961 acctacgaga aactcaccga gatcatcccc aagtcagccg tgggggagct gtctgaggac
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2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtgaac
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2281 agttaggagc a

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(2) INFORMATION FOR SEQ ID NO:2575:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 11583 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2575:

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1 gaattcctgc cactcttctc gcaacggccc aggagctcag agctccacat ctgaccttct
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121 tttcaacttg gacacagagg agctgacagc ctcccggtgt gacagcgctg ggtttggaga
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301 cggcctgcag gtgcccccg agggcgtgaa catgtccctg ggcctgtccc tggcgtctac
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421 catgtacctc accggaactt gcttctcctt gggccccacc cagctcacc agaggctccc
481 ggtgtccagg caggagtgcc caagacagga gcaggacatt gtgttccctg tccatggctc
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3721 tcaaggttcc aactggaaac ccttaggaca gggctccctgc tgtgttcccc aaaaggactt
3781 gacttgcaat ttctacctag aaatacatgg acaatacccc caggcctcag tctccttctt
3841 cccatgaggc acgaatgatc tttctttctt ttcctttttt tttttttttt tttctttttt
3901 tttttttttg agacggagtc tcgctctgtc acccaggctg gagtgcattg gcgtgatctc
3961 ggctcgctgc aacctccgcc tccggggttc aagtaattct gctgtctcag cctcctgcgt
4021 agctgggact acaggcacac gccacctcgc ccggcccgat cttctaaaaa tacagttctg
4081 aatatgtgc tcatccccac ctgtcttcaa cagctcccca ttacctcag gacaatgtct
4141 gaactctcca gcttcgcgtg agaagtcccc ttccatccca gaggggtggc ttcaggggcg
4201 acagcatgag agcctctgtg ccccatcac cctcgtttc agtgaattag tgtcatgtca
4261 gcatcagctc agggcttcat cgtggggctc tcagtccga ttccccagc tgaattggga
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4381 tggcctggaa gggaggagcg ccctctaggg agggacatgg ccccggtgcg gctgcagctc
4441 accagcccca ggggcagaag agacccaacc acttctatt ttttgaggct atgaatatag
4501 tacctgaaaa aatgccaaag actagattat ttttttaaaa agcgtacttt aaatgtttgt
4561 gtttaatacac attaaaacat cgcacaaaaa cgtatcatct accgctcctt gggaaataat
4621 ctgaaaggctc taaaaataaa aaagccttct gtgg
1 ctcgccctgg tggggtgtgt ctccctcggg tgcgtcctct ctcaggagtg cacgaagttc
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121 ctgaacttca cagggccggg ggatcctgac tccattcgct gcgacacccg gccacagctg
181 ctcatgaggg gctgtgcggc tgacgacatc atggacccca caagcctcgc tgaaacccag
241 gaagaccaca atgggggcca gaagcagctg tccccacaaa aagtgcgctt ttacctgcga
301 ccaggccagg cagcagcgtt caacgtgacc ttccggcggg ccaagggtta ccccatcgac
361 ctgtactatc tgatggacct ctccactacc atgcttgatg acctcaggaa tgtcaagaa
421 ctagggtggc acctgtctcg ggccctcaac gagatcaccg agtccggccg cattggcttc
481 gggctcctcg tggacaagac cgtgtgtccg ttcgtgaaca cgcacctga taagctgcga
541 aacccatgcc ccaacaagga gaaagagtgc ccgccccgt ttgccttcag gcacgtgctg
601 aagctgacca acaactccaa ccagtttcag accgaggtcg ggaagcagct gatttccgga
661 aacctggatg cacccgaggg tgggctggac gccatgatgc aggtcgccgc ctgcccggag
721 gaaatcggtc ggcgcaacgt cagcgcgctg ctggtgtttg ccaactgatg cggcttccat
781 ttcgcgggcg acggaagctt gggcgccatc ctgaccccca acgacggccg ctgtcacctg
841 gaggacaact tgtacaagag gagcaacgaa ttcgactacc catcggtggg ccagctggcg
901 cacaagctgg ctgaaaacaa catccagccc atcttcgcg tgaccagtag gatggtgaag
961 acctacgaga aactcaccga gatcatcccc aagtcagccg tgggggagct gtctgaggac

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1021 tccagcaatg tgggtccatct cattaagaat gcttacaata aactctcctc cagggtcttc
1081 ctggatcaca acgccctccc cgacaccctg aaagtcacct acgactcctt ctgcagcaat
1141 ggagtgcagc acaggaacca gccagagagt gactgtgatg gcgtgcagat caatgtcccg
1201 atcaccttcc aggtgaaggt cacggccaca gactgcatcc aggagcagtc gtttgcac
1261 cgggctctgg gcttcacgga catagtgacc gtgcaggtcc ttccccagtg tgagtgcgg
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1381 atctgcaggt gtgacactgg ctacattggg aaaaactgtg agtgccagac acagggccgg
1441 agcagccagg agctggaagg aagctgccgg aaggacaaca actccatcat ctgctcaggg
1501 ctgggggact gtgtctgcgg gcagtgcctg tgccacacca gcgactccc cggaagctg
1561 atatacgggc agtactgcga gtgtgacacc atcaactgtg agcgtacaa cgccaggtc
1621 tgccgctgcc cggggagggg gctctgcttc tgccgggaagt gccgctgcca ccggggcttt
1681 gagggtctag cgtgccagtg cgagaggacc actgagggtt gcctgaaccc gcggcgtgtt
1741 gagtgtagtg gtcgtggccg gtgcccgtgc aacgtatgag agtgccattc aggtaccag
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1861 gccgagtgcc tgaagttcga aaagggcccc tttgggaaga actgcagcgc ggctgttccg
1921 ggctgcagc tgcgaacaa ccccgtaag ggcaggacct gcaaggagag ggactcagag
1981 ggctgctggg tggcctacac gctggagcag caggacggga tggaccgcta cctcatctat
2041 gtgatgaga gccgagagtg tgggcaggc cccaacatcg ccgcatcgt cgggggcacc
2101 gtggcaggca tctgtctgat cggcattctc ctgctggtca tctggaaggc tctgateccac
2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtggaac
2221 aatgataatc cccttttcaa gagcgccacc acgacggtca tgaaccccaa gtttctgag
2281 agttaggagc a

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(2) INFORMATION FOR SEQ ID NO:2576:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 661 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2576:

```

1 tcttcctctc ctgggccgtc ctctgagcag cagacggggc taagcgttcc ccagctcggc
61 ttcacacaca gcccggtgcca ccacaccgac ggtaccatga aggacgaggt agctctactg
121 gctgctgtca ccctcctggg agtccctgctg caagcctact tctccctgca ggtgatctcg
181 gcgcgcaggg ccttcgcggt gtccgcgcgc ctcaccaccg gccaccgca gttcgcagcg
241 gtctaccgag cccaggtgaa ctgcagcgag tacttccgcg tgttcctcgc cactctctgg
301 gtcgcccggca tcttctttca tgaaggggag gcggccctgt gcggcctggt ctacctgttc
361 gcgcgcctcc gctacttcca gggctacgcg cgctccgcgc agctcaggct ggaccgctg
421 tacgcgagcg cgcgcgcctt ctggctgctg gtggcgctgg ctgcgctcgg cctgctcgcc
481 cacttccctc cgccgcgctt gcgcgcgcgc ctccctcgac ggctccggac gctgctgccc
541 tgggcctgag accaaggccc ccggggcgac ggagccggga aagaagagcc ggagcctcca
601 gctgccccgg ggagggggcg tcgcttcgcg atctagtct ctatcattaa agttctagt
661 accga

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(2) INFORMATION FOR SEQ ID NO:2577:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4441 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2577:

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1 gagctcacag agccccagc tggggcatat ctggtttccg ggggcagggg cgataccag
61 aggaggaaga agggattctg agagagccca acaggctccg agcctcaggc tggagctgag
121 cttggggcag caaggaagga ccaggtgcga gggcagaacc atgcggcccc acccctgcag
181 cacggcctgt ggccctcccc agtccctgcc cgtgcttctg ggtcagctct gactttgcca
241 cttctgacca aaagccaccg caaacccact caagccaaaa gaggaagtga ccgttaggcc
301 caactgggaa ggctggcggc caggggcact ccaggcaggg cgaggggggg gcgggggggc
361 gctccaggcg gggcgaggga gacaccgca actccaggca ggagtcctcg ggtgccacct
421 ttcctctcca cctggccctg cgtgggctct gtccctcaggg tggcccgccg tagtccccct
481 cccactctg agtttctgt cccaaagtcc taaggaaagt tccagaacta catctcacca
541 tcttgagtca gccttgctc agtgtccatc tcacaggcct ggaaggggca ggagtcagca
601 ctgtccagac cacaggccct gagtgtgggg agggcagccg tctaggaagg tgggtggagg
661 ttgttacctt gaggcaagag ggctgcgggg cagaaagaca cagcaggtga ctgttgtggg
721 aggcccaaga gaggcctggg agagggatgg ccacaaagg ctgaccctcc cgccaccag
781 ggggccttgg acaggtttcc tcctggcagg gtggcccttg tgcattggaac ccctacaacg
841 actaaggctg gcaggcatga ggtttcctga aggagaaaga gcttgtgggg ccaggtgtgg
901 ctgggggggc gctgggactc cattctgaag ccaaaggcac tgggaagggc ttccgcagag
961 gagggtttgg caggggttgc caggaacagc ctggatgggg acaggggaaca gataaggtgg
1021 gtggaggagt tagccgggag cctggggctg gctccagcat gatgtggggg tctgcaaggc
1081 cctggagaaa gtgggtggt gcagcagggg gcacaccac agctggagct gaccagatg

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1141 gacagcttg gctctgccac gcgggactag gcaaggaagg ggcacgaaca agcaggaagt
1201 ggtgagcg gctccagcta gctgctctcc cctgcccaga ctttgggttc ctccctgctg
1261 gcttggcctg gctccctggc tctgtgtggt atggtcacac ccccggtcac cccctccact
1321 gagatggggc ggggagagca ccgaggtgc tcttctcttc ctgggcccgt ctctgagcag
1381 cagacggggc taagcgttcc ccagctcgcc ttcacacaca gcccggtcca ccacaccgac
1441 ggtaccatga aggacgaggt agctctactg gctgctgtca cccctcctgg agtcctgctg
1501 caaggtgggc tggttcctat cttaggaagag ggtgggcctt agatccctac agcttgccct
1561 ctgcccccta ggcccaggtg gagggcagag gtggggactc cagcccaggc ccaagctgga
1621 agaggggtgg gactttcagg gaactggggg gcacctgggt gtgagagctg taggacttgg
1681 ggggtggcaag ggtgccagga caaatggtag gatagccatg ggcttgggga agctgatctc
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2041 ctccagctgc tctgcactg agctggatgg ccacctgtg acaccctct gcagagggcc
2101 cagaaccaa ggtgccaggg ctgcaggact cagggggaga tggctccag ggaggtctgg
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2221 gagaagggtt cctgccaca gagaaacttt agggccagcc caccctctgc aactacccca
2281 gccctggggt cctgggggta ggctaggaga gtcccagctg caacctctg ggagcaggag
2341 agaaggtgtc tgtcagattt aggcctggga ccggaatgca ggaacagaga aactgaggtt
2401 tggaggcaca gggacgcagg cttagtgat cccggcctga ggcagggtca gagggcctg
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2581 acctgaaagc tgcatttgc tgtgtttga gagtgaatg attcagaaac aaggactcaa
2641 gtggtctctc tgcggagca ggtgtccctg tgcctgaatc actcaccctc cccatacac
2701 tcacaggtg ggacagggc tctctgcgcc ccaggttca gccctgccct cctcgctgaa
2761 tgtcagggac acagggcagg ccagggatgg gtgagacgag aggtctctc gggcggggag
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2881 atccctcca ctccatctc tggggcttcg ggtgtccaga cctgactccc gctccccctc
2941 ctccccagc ctacttctcc ctgcagggtg tctcggcgcg cagggccttc cgcgtgtcgc
3001 cgccgtcac caccggccca cccgagttcg agcgcgtcta ccgagcccag tgaggcgcg
3061 cgggagggcg cggggcgggg agcgagcccc agggcggtcc gggtcgcagg accatcccg
3121 ccggcgcgct catccacccc gccaccgca ggggtgaact cagcgagtag tcccgcgtg
3181 tctcgccac gctctgggtc gccggcatct tctttcatga aggtcgggt gtggggcagg
3241 gggcacgcg ctggaccccc ggaccccgcg cagggcgctc accaggcccc tgctacctc
3301 tgcaggggc ggcggccctg tgcggcctg tctacctgtt cgcgcgcctc cgtacttcc
3361 agggctacgc gcgctccgcg cagctcaggt gagggccggg cggggagcgg ggcgggccg
3421 gggaaagatc gcgggcgggc ggggctcctg gggagcggga ccgaagctg gggcgggcga
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3541 agtccccgtg gggccaagggt tgcggcgggg aagaagcggg cctcctcgcg ccacctcccc
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3721 gctcctcgga cggctccgga cgtgctgccc gtgggcttga gaccaaggcc cccggggcga
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3841 catcctagtc tctatcatta agttctagt gaccgagacc cgggctgctg tctctgggtc
3901 cgcgggggtg gcgcaccgcg ggctacggag cctggagggg cccagcccga gtccgggag
3961 cccggggcgg gcttcttagt ggcgcggtga gagtggctgc gaaggaacga gccctcccc
4021 tggggcggga ctggatccgg tcttcacctc ctacccact ccctactcag cctcggggtc
4081 acaaggccgc ccagtcctg cgggggttcc cctcctagcg ctacagggte tctcaccgg
4141 tccccctct caggggcctt cctcagactc tcagcccgcg cagtccctc tccctggcc
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4321 tccgcagagc tgcgggcacc atgggaacga agtgagtcag tgacagggcg tctcaaggaa
4381 atgtccagaa gccttgggga tccaggggag gccacagaa acaaggaagt gacttttagc
4441 caagtatgca ggagaaacgg aggag

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(2) INFORMATION FOR SEQ ID NO:2578:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5102 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2578:

```

1 tcttctctc ctgggcccgt ctctgagcag cagacggggc taagcgttcc ccagctcgcc
61 ttcacacaca gcccggtcca ccacaccgac ggtaccatga aggacgaggt agctctactg
121 gctgctgtca cctcctggg agtcctgctg caagcctact tctccccga ggtgatctcg
181 gcgcgcagg ccttcccggt gtcgcccgcg ctaccacgg gccacccga gttcgagcgc
241 gtctaccgag cccaggtgaa ctgcagcgag tacttccccg tgttctcgc cacgctctgg

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301 gtcgcccggca tcttcttttca tgaagggggcg gcggccctgt gcggccttgt ctacctgttc
361 gcgcgcctcc gctacttcca gggctacgcg cgctccgcgc agctcaggct ggaccgctg
421 tacgcgagcg cgcgcgccct ctggctgctg gtggcgctgg ctgcgctcgg cctgctcgcc
481 cacttctctc cgcccgcgct gcgcgcgcgc ctctcggac ggctccggac gctgctcgcc
541 tgggcctgag accaaggccc ccgggcccgc ggagccggga aagaagagcg ggagcctcca
601 gctgcccccg ggagggggcg tcgcttccgc atcctagtct ctatcattaa agttctagt
661 accga
1 gagctcacag agccccagc tggggcatat ctggtttccg ggggcagggg cgataccag
61 agggaggaaga agggattctg agagagccca acaggctccg agcctcaggc tggagctgag
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181 cacggcctgt ggccctcccc agctcctgcc cgtgcttctg ggtcagctcg gactttgcca
241 cttctgacca aaagccaccg caaacccact caagccaaaa gaggaaagtga ccgttaggcc
301 caactgggaa ggctggcggc caggggcact ccaggcaggg cgaggggggc ggccgggggc
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481 cccactctg agtttctgt cccaaagtc taaggaagt tccagaacta catctacca
541 tcttgagtca gccttggtc agtgtccat tcacaggcct ggaagggca ggagtacga
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661 ttgttacctt gaggcaagag ggctgcgggg cagaaagaca cagcaggtga ctgtgtggg
721 agggccaaaga gaggcctggg agaggatgg cccacaaggg ctgaccctcc cgccaccag
781 ggggccttgg acaggtttcc tcctggcagg gtggcccttg tgcattggaac ccctacaacg
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961 gaggggttgg caggggttgc caggaacagc ctggatgggg acaggaagca gataaggtg
1021 gtggaggagt tagccgggag cctggggctg gctccagcat gatgtgggg tctgcaaggc
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1321 gagatggggc ggggagagca ccgaggtgc tcttctctc ctgggcccgt ctctgagcag
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2521 gcacctggga ggtgcagcc agctctgccc tcagactccc gaggcacttc ctggccaggg
2581 acctgaaagc tgcatttgcc tgtgttttga gagtgaatg attcagaac aaggactcaa
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2701 tcacagggtg ggacagggcc tctctgcgcc ccaggcttca gccctgccct cctcgctgaa
2761 tgtcaggggc acagggcagg ccaggatgg gtgagacgag aggtctcctc gggcggggag
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2881 atccctccca ctcccatctc tggggcttcc ggtgtccaga cctgactccc gctccccctc
2941 ctccccagc ctacttctcc ctgcagggtg tctcggcgcg cagggccttc cgcgtgtcgc
3001 cgccgctcac caccggccca ccgagttcg agcgcgtcta ccgagccag tgaggcgcg
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3241 ggcgcacgcg ctggaccccc gggaccgcg cagggcgctc accaggcccg tgcgtacctc
3301 tcgcaggggc ggcgccctg tcgggcctg tctacctgt cgcgcgctc cgctacttcc
3361 agggctacgc gcgtcccgcg cagctcaggg gagggccggg cggggagcgg gggggggcgg
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3481 cgggcccggg cccagcgcc tgggggattc ggtggcgag ccctggcgcc ggccagagga
3541 agtccccgtg gggccagggt tgcggcgggg aagaagcggg cctcctcgcg ccacctcccc
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3661 ggtggcgctg gctgcgctcg gectgctcgc ccacttcctc ccggccgcgc tgcgcgcgc
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3781 cggagccggg aaagaagagc cggagcctcc agctgccccg gggaggggcg ctgcgttccg
3841 catcctagtc tctatcatta aagtcttagt gaccgagacc cgggctgcgt tctctgggtc
3901 cgcgggggtg ggcaccgcg ggctacggag cctggagggg cccagcccga gtccgggcag
3961 cccggggcgg gcttcttagt ggcggcgtga gagggtgctc gaaggaacga gccctcccc
4021 tggggcgga ctggatccg tcttcacctc ctacccact ccctactcag cctcggggtc
4081 acaaggccgc ccagtcctgc cggggttcac cctcctagcg ctacgcggtc tctcaccg
4141 tccccctcct caggggcctt cctcgcactc tcagccgcgc cagtcctcgc tccccgggc
4201 ttcacagctg aactagata gagcctgttg ctctctcccc aggtgagggc aggggtttt
4261 cttttgttca gcactggatc cccctcgtaa actgtagggt ttcagggcag cctccgagg
4321 tccgcagagc tgcgggcacc atgggaacga agtgagtcag tgacaggcgc tctcaaggaa
4381 atgtccagaa gccttgggga tccaggggag gccacagaa acaagaagt gacttttagc
4441 caagtatgca ggagaaacgg aggag

(2) INFORMATION FOR SEQ ID NO:2579:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3001 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2579:

1 gccattctct cacatcccgt gcggtcagga agcccttctt gaactctgac ttcagttctt
61 gctgcgggtt ctgcccattt ttttcatact ctctgacagc tgcgaggtca tctctgctct
121 ggctttttct caagcagaac aagtgggggc tctggaaaag ttaagggacc tcagtggcca
181 ccattatact ttgcatcttt cctgagaagt gagagttgaa agggaagcag gaaggcccat
241 ggtcagattg aaggaaggac ttttttagtt cttttttttt tttttgaaat ggagctcgc
301 tctgtcattc aggtctgagt gcagtggtgc gatctcagct cactgcagcc tccacttctt
361 gggttccatc gattctctct cctcagcttc ccaagtagct gagactacag gcacatgcca
421 ctacaccagc ctaacttttg ttttttagt agagacgggg tttcaccatg ttggccaggc
481 tgggtctcaa ctgctaact caagtgatct gctccctca gcctcccaaa gtgctgggat
541 taccggatg aaccaccaca acctgccagg aatttttagt ttttagcttt tgcaggagac
601 ttcaaggaaa ggagacattc ctctgtccag gaaacgggta aggggacctt tctgcatg
661 ctggtttccc ctctggcag ggtgggcag aggcacact gttcctgct cctcactcct
721 gctcctcatg ctacgcctgc cagctcgcc tcaactttgt gtgtctaaag tggaaactgaa
781 tagtagctgt gagaagatag gaaagaggta gtgccaatct ccttgcccag atcataaatc
841 cagactcagc agggtaacca catgggcaag cacaaggtag gtgcttgggg aaagggaag
901 taattggcat tctgtgtgat accaaggaga ccatttggat tttggcttct accaaagaga
961 atggagaatt ggttgacctt aatggaacca gtccctttaa gtaaggggag gaaaggggt
1021 gctggaagat ggccctcttc ccaccacctt gatcatagct tgaactgaag ccaaggacag
1081 agtgctgccc ccttcggcat ttaactgatg gccctcttta aatcatgatg ttatctaacc
1141 caaaccaga cccaggacct agtcacagct ccaacctaca ctctctatta atcttaaaac
1201 aaagcgaaac aaacacaaaa agatatcagc attgtagcct ccaatctgag cccatttccc
1261 ttctctggct accatacctc ctctcctat atgataccat tcaactactt gttcaattat
1321 ccagtctaga cctgcattct gaggccacac ccagccttct cactccccac acccctctt
1381 cctctctcac tgctccttc tggctctctc tcactctggc ccacctctaa ggagtcctcc
1441 tgccttctgg gttgcccctg aaaacagact atccccctc ctagtgaagg gagggttag
1501 gggtttcagc cccaccctca ggaagatgcg tcttccctgt cctctgctct gtggtacttc
1561 ctctctggct gatttagcaa acagcaccta gacctggggc caggcctttg gcagtgaggc
1621 agatccaggg ataggctaca ccacctgcc ctgacctgg gattggcatc agcttccaac
1681 cagttcctgc caaagcttgt aagtcctccc gacggccatg aacactacat cttctgcagc
1741 accccctca ctaggtgtag agttcatctc tctgtggct atcatcctgc tgtcagtggc
1801 gctggctgtg gggttcccc gcaacagett tgtgtgtgg agtatcctga aaaggatgca
1861 gaagcgtctc gtcactgcc tgatggtgct gaacctggcc ctggccgacc tggcgtatt
1921 gtcactgct ccttttttcc ttcacttctt ggcccaaggc acctggagtt ttgactggc
1981 tggttgccc ctgtgtcact atgtctgcgg agtcagcatg tacgccagcg tctgtctat
2041 cagggccatg agtctagacc gtcactggc ggtggccgc cctttgtgt cccagaagct
2101 acgcaccaag gcgatggccc ggcgggtgct ggcaggcatc tgggtgtgt cctttctgct
2161 ggccacaccc gtctcgcgt accgcacagt agtgccctgg aaaacgaaca tgagcctgtg
2221 cttcccgcgg taccacagcg aagggcaccg ggccttccat ctaatcttc aggtgtcac
2281 ggggttccgt ctgccccttc tggctgtgtt ggccagctac tcggacatag ggcgtcggt
2341 acaggcccg cgcttcgcc gcagccgcg caccggccgc ctgggtgtgc tcatcatcct
2401 gaccttcgcc gccttctggc tgccctacca cgtggtgaac ctggctgagg cgggcccgc
2461 gctggccggc caggccgcg ggttagggct cgtggggaag cggctgagcc tggcccgaa
2521 cgtgctcatc gcactgcct tcctgagcag cagcgtgaac cccgtgctgt acgctgcgc
2581 cggcgggcgc ctgctgcgt cggcgggcgt gggcttcgt gccaaagctg tggaggcac
2641 gggttccgag gcgtccagca cgcgcgcg gggcagcct ggccagacc ctaggagcg
2701 cccgcgcgt ctggagccc gcccttccga gagcctcact gcctccagcc cctcaagtt
2761 aaacgaactg aactaggcct ggtggaagga ggcgcactt cctcctggca gaatgctagc

2821 tctgagccag ttcagtagct ggaggaggag caggggctgt gagggcgtgg agggcgtggg
 2881 agcgtgggag gcgggagtag agtggagaa gagggagaga tggagcaaa tgagggccga
 2941 gtgagagcgt gctccagcct ggctcccaca ggcagcttta accattaaaa ctgaagtctg
 3001 aa

(2) INFORMATION FOR SEQ ID NO:2580:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 841 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2580:

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
 61 aagccaagat gaaactcccc ctacttcttg ctcttctatt tggggcagtt tctgctcttc
 121 atctaaggtc tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
 181 atgaggagac accagagcag gagatggagg agacccttg cagggagctg gaggaagagg
 241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctggt gagtctatct
 301 cagtgccaga tatggtgcac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
 361 tgggtgggcat ccctgggtgc cagacctgcc gctacctcct ggtgagaagt ctccagacgt
 421 ttagtcaagc ttggtttact tgccggaggt gctacagggg caacctggtt tccatccaca
 481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
 541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
 601 gccgctggaa ctttgcgtac tgggtcgtc accagccctg gtcccgggt ggtcactgcg
 661 tggccctgtg taccagagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
 721 tcatctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcttgggcag
 781 ctgcctcccc tctctgctt gccatccctc cctccacctc cctgcaataa aatgggtttt
 841 actgaaaa

(2) INFORMATION FOR SEQ ID NO:2581:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 841 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO 2581:

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
 61 aagccaagat gaaactcccc ctacttcttg ctcttctatt tggggcagtt tctgctcttc
 121 atctaaggtc tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
 181 atgaggagac accagagcag gagatggagg agacccttg cagggagctg gaggaagagg
 241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctggt gagtctatct
 301 cagtgccaga tatggtggac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
 361 tgggtgggcat ccctgggtgc cagacctgcc gctacctcct ggtgagaagt ctccagacgt
 421 ttagtcaagc ttggtttact tgccggaggt gctacagggg caacctggtt tccatccaca
 481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
 541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
 601 gccgctggaa ctttgcgtac tgggtcgtc accagccctg gtcccgggt ggtcactgcg
 661 tggccctgtg taccagagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
 721 tcatctgttc ctactgagct ggtcccagcc agcagttcag agctgccctc tcttgggcag
 781 ctgcctcccc tctctgctt gccatccctc cctccacctc cctgcaataa aatgggtttt
 841 actgaaaa

(2) INFORMATION FOR SEQ ID NO:2582:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1682 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2582

1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
 61 aagccaagat gaaactcccc ctacttcttg ctcttctatt tggggcagtt tctgctcttc
 121 atctaaggtc tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
 181 atgaggagac accagagcag gagatggagg agacccttg cagggagctg gaggaagagg
 241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctggt gagtctatct
 301 cagtgccaga tatggtgcac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
 361 tgggtgggcat ccctgggtgc cagacctgcc gctacctcct ggtgagaagt ctccagacgt
 421 ttagtcaagc ttggtttact tgccggaggt gctacagggg caacctggtt tccatccaca
 481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
 541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
 601 gccgctggaa ctttgcgtac tgggtcgtc accagccctg gtcccgggt ggtcactgcg
 661 tggccctgtg taccagagga ggctactggc gtcgagccca ctgcctcaga agacttcctt

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721 tcactctgttc ctactgagct ggtcccagcc agcagttcag agctgccttc tcttgggcag
781 ctgcctcccc tctctgtctt gccatccctc cctccacctc cctgcaataa aatgggtttt
841 actgaaaa
1 aaaagaagga cctgggcttt gggaagatct aaagaccag gaaggtctct ggggtgggata
61 aagccaaagat gaaactcccc ctacttctgg ctcttctatt tggggcagtt tctgctcttc
121 atctaagggtc tgagacttcc acctttgaga cccctttggg tgctaagacg ctgcctgagg
181 atgaggagac accagagcag gagatggagg agacccttg cagggagctg gaggaagagg
241 aggagtgggg ctctggaagt gaagatgcct ccaagaaaga tggggctgtt gagtctatct
301 cagtgcacaga tatgggtggac aaaaacctta cgtgtcctga ggaagaggac acagtaaaag
361 tgggtgggcat cctgggtgac cagacctgcc gctacctcct ggtgagaagt ctccagacgt
421 ttagtcaagc ttggtttact tgccggagggt gctacagggg caacctggtt tccatccaca
481 acttcaatat taattatcga atccagtgtt ctgtcagcgc gctcaaccag ggtcaagtct
541 ggattggagg caggatcaca ggctcgggtc gctgcagacg ctttcagtgg gttgacggca
601 gccgtggaa ctttgcgtac tgggtgctc accagccctg gtcccgcggt ggtcactgag
661 tggcctgtg taccagagga ggctactggc gtcgagccca ctgcctcaga agacttcctt
721 tcactctgttc ctactgagct ggtcccagcc agcagttcag agctgccttc tcttgggcag
781 ctgcctcccc tctctgtctt gccatccctc cctccacctc cctgcaataa aatgggtttt
841 actgaaaa

```

(2) INFORMATION FOR SEQ ID NO:2583:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 781 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2583

```

1 agcagagggg ctgagaccaa accagaaacc tccaattctc atgtggaagc ccatgcccctc
61 accctccaac atgaaagcct ctgcagcact tctgtgtctg ctgctcacag cagctgcttt
121 cagccccagc gggcttgctc agccagtgg gattaatact tcaactacct gctgctacag
181 atttatcaat aagaaaatcc ctaagcagag gctggagagc tacagaagga ccaccagtag
241 cactgtccc cggaagctg taatcttcaa gaccaaactg gacaaggaga tctgtgctga
301 cccacacagc aagtgggtcc aggactttat gaagcacctg gacaagaaaa cccaaactcc
361 aaagctttga acattcatga ctgaactaaa aacaagccat gacttgagaa acaataaatt
421 tgtataccct gtcctttctc agagtggctc tgagattatt ttaattcatt tctaaggaat
481 atgagcttta tgaataatg tgaatcatgg tttttcttag tagattttaa aagtatttaa
541 tattttaatt taatcttcca tggattttgg tgggttttga acataaagcc ttggatgtat
601 atgtcatctc agtgcgtgaa aaactgtggg atgctcctcc ctctctacc tcatgggggt
661 attgtataag tccttgcaag aatcagtgca aagatttgct ttaattgtta agatatgatg
721 tccctatgga agcatattgt tattatataa ttacatattt gcatatgtat gactcccaaa
781 ttttcacata aaatagattt ttgtaaaaaa

```

(2) INFORMATION FOR SEQ ID NO:2584:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1081 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2584

```

1 ggtttctatt gacttgggtt aatcgtgtga ccgcgggtgc tggcacgaaa ttgaccaaac
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaaggttaat cactgctgtt
121 tcccgtggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccctttg atcgtgggtg ttagagggtt gaactcactg gaatggggat gcttgcatgt
241 gtaatcttac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgccctcac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccagggt gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagttagc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cctttctcag agtgggtctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatggtt tttcttagta
781 gattttaaaa gttattaata ttttaattta atcttccatg gattttggtg ggttttgaac
841 ataaagcctt ggatgtatat gtcactcag tgcgtgaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcctt
961 aattgttaag atatgatgtc cctatggaa catattgtta ttataaatt acatatttgc
1021 atatgtatga ctcccaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa

```

(2) INFORMATION FOR SEQ ID NO:2585:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1081 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2585

```
1 gggttctatt gacttgggtt aatcgtgtga ccgctgtggc tggcacgaaa ttgaccaacc
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaagggtaat cactgctgtt
121 tcccgtgggg gtgtggctag gctaagcgtt ttgagctgca ttgctgctgt cttgatgctt
181 gtcccttttg atcgtggtga tttagagggt gaactcactg gaatgggat gcttgcattg
241 gtaatcttac taagagctaa tagaaggct aggaccaaac cagaaacctc caatttcat
301 ttggaagccc atgcccctac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccaggg gcttgctcag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaactqga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacttga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cctttctcag agtgggtctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatggtt tttcttagta
781 gattttaaaa gttattaata ttttaattta atcttccatg gattttggtg ggttttgaac
841 ataaagcctt ggatgtatat gtcattctcag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaatt ttcacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
```

(2) INFORMATION FOR SEQ ID NO:2586:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2881 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2586

```
1 ggatccttaa gccatcatgc aaaatatcta gccatgtgga gggaccactg gaaagatcac
61 acacacacac acacacacac acacacacac atacagagag agagagagac acctgagaaa
121 ttccatctgg tccaactgct ggctgttgaa gtcctccag cccagacccc agacactgaa
181 tgaaggcctt gtgatatagt caagagcaaa aaaaccagaa agattgttat tgttttaagt
241 cactgttttc agatagattg ctatgcagca atagattatt gaaatagaca ctacaatttt
301 aggtactatt attctaagaa tattgaattt ttttttctg ctaatgttct attattttac
361 ttttctctgg gtttttagaaa gccaccagga ttttaagacag tgaagaatct ttgagtcctt
421 tttagagttg aaccaaagtt tgaattgtct tttgtggact cgtgtcctat ggataccact
481 ccaaagggaa aaggggaata tcccttacct atctttgact ttggatatcc tgattcttct
541 ctttttctat agaattgtgc tcatttcaga gaaactggtc tcttgataat agccatagat
601 tacatactgt ggtcttcttc tacatagacc ctacctcacc taccactcct ggtcttagct
661 gaaaaacagg ctagcctcga ctcatactgt catttcctat cctcccactg aagtgcactg
721 gctcagcaga tttattactc catagattta ttactccatt ctatgattca tctctctgct
781 ttcctataaa aggcagagac agagcttcca gaggagcaga ggggctgaga ccaaaccaga
841 aacctccaat tctcatgtgg aagcccctgc cctcacctc caacatgaaa gcctctgcag
901 cacttctgtg tctgctgctc acagcagctg ctttcagccc ccaggggctt gctcagccag
961 gtaaggctcc tctctccttc tcttgaagc acattgcccc ctctctgggt tatcttgac
1021 caatcaagaa gacctgatac ccacagtctc actttaacag ctacttttcc aagataaggt
1081 aacttagaaa aaggataagg ggtgagccca accacacagc tgctgttggg tagagcctga
1141 actagaattc cagctgtgaa ccccaaattc agctccttct aggattccag ctctgggaac
1201 acctcagtg cagttaccac tccagctgct tccagcagaa tttgggatca ggggtgatca
1261 agacaggagg cttctgggga tgggtgtgct ggctgtttcc agataccggg agaccagaa
1321 tctggtctgt ggaagcccag cttccagaaa cagcagctct gcagaggttg tacgtatcag
1381 ggaaactcat gaccaagcat tgaatgtcga gaggctaaaa ggggatccat agttggggta
1441 cccttgctct aaggaattgg attattatat tagccctcc tagcaatgcc cagagtagcc
1501 atcaattcct cttccgtctt tcaactggtg atggtgcac cctatttcac agtccataaa
1561 agtgaaaagg agtttatgaa atgcctcaaa gggcagagac attgggtttg ggatgggcag
1621 cttttccctc cactcttctc tttctttctg attccttctt cttaccattc cctgttttac
1681 aaacagaaag acccaggaca caccctcaat ggacttttct tcttgttgtt tcatgtcagt
1741 tgggattaat acttcaacta cctgctgcta cagatttatc aataagaaaa tccctaagca
1801 gaggtctggg agctacagaa ggaccaccag tagccactgt ccccggaag ctgtaatgta
1861 tgtggacgat gaccaccac cctcacacc tcagtcctag gttcttccct gggcagggaa
1921 taggactagt atcagaatga gttggagtca aatactgtga tgcatacagc atctctaacc
1981 ttatcccaga catttgccag tgagaaacaa tacaagtaaa gaaagtggct tctcactctc
2041 agctcccttt ccagctatca ttttacatct cagttcgttc cttcatcctg gaaccaagag
2101 agattcaactt gggctaccaa aaagagctgc ttctctgagt ccccttccct tgttttatct
2161 tcttcttcca tccctgaggc atccccatca gctaggtctg tgggctagac agatttccca
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2221 tagacttggg cactctccca ggctgaaccc tcaaggtggt ccactctgact gtctcctttc
2281 tgctccacag cttcaagacc aaactggaca aggagatctg tgctgacccc acacagaagt
2341 gggctccagga ctttatgaag cactctggaca agaaaaccca aactccaaag ctttgaacat
2401 tcaatgactga actgaaaaca agccatgact tgagaaacaa ataatttgta taccctgtcc
2461 tttctcagag tggttctgag attattttta tctaattcta aggaatatga gctttatgta
2521 ataagtgtgaa tcatggtttt tcttagtaga ttttaaaagt tattaatatt ttaatttaatt
2581 cttccatgga ttttgggtggg ttttgaacat aaagccttgg atgtatatgt catctcagtg
2641 ctgtaaaaaac tgtgggatgc tctcccttc tctacctcat ggggttattg tataagtcct
2701 tgcaagaatc agtgcaaga tttgctttta ttgttaagat atgatgtccc tatggaagca
2761 tattgttatt atataattac atatttgc atgtatgact cccaaatttt cacataaaat
2821 agatttttgt ataacagctg ccattcatgg ttttttaag gataagtaat aaagctgggt
2881 gggta

(2) INFORMATION FOR SEQ ID NO:2587:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5824 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2587

1 agcagagggg ctgagaccaa accagaaacc tccaattctc atgtggaagc ccattgccctc
61 accctccaac atgaaagcct ctgcagcact tctgtgtctg ctgctcacag cagctgcttt
121 cagccccag gggcttctc agccagtggg gattaatact tcaactacct gctgctacag
181 atttatcaat aagaaaatcc ctaagcagag gctggagagc tacagaagga ccaccagtag
241 ccactgtccc cgggaagctg taactctcaa gaccaaactg gacaaggaga tctgtgctga
301 cccacacag aagtgggtcc aggactttat gaagcacctg gacaagaaa cccaaactcc
361 aaagctttga acattcatga ctgaaactaaa aacaagccat gacttgagaa acaataaatt
421 tgtataccct gtcctttctc agagtgggtc tgagattatt ttaactaat tctaaggaat
481 atgagcttta tgtaataatg tgaatcatgg tttttcttag tagattttta aagtatttaa
541 tatttttaatt taactctcca tggattttgg tgggttttga acataaagcc ttgatgtat
601 atgtcatctc agtgcgtgaa aaactgtggg atgctcctcc cttctctacc tcatgggggt
661 attgtataag tccttgcaag aatcagtgca aagatttgc ttaattgta agatatgatg
721 tccctatgga agcatattgt tattatataa ttacatattt gcatatgtat gactcccaaa
781 ttttcacata aaatagattt ttgtaaaaaa
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaacc
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaaggttaat cactgtgtgt
121 tcccgtgggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtg ttttagaggt gaactcactg gaatggggat gcttgcattg
241 gtaactctac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgccctcac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccagggt gcttgcctag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggtc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cttttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatggtt tttcttagta
781 gatttttaaa gttattaata ttttaattta atcttccatg gattttggtg ggttttgaac
841 ataaagcctt ggatgtatat gtcactctag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt
961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaatt ttcacataaa atagattttt gtatacaaaa aaaaaaaaaa
1081 aaaaa
1 ggtttctatt gacttgggtt aatcgtgtga ccgcggtggc tggcacgaaa ttgaccaacc
61 ctgggggttag tatagcttag ttaaactttc gtttattgct aaaggttaat cactgtgtgt
121 tcccgtgggg gtgtggctag gctaagcgtt ttgagctgca ttgctgcgtg cttgatgctt
181 gtcccttttg atcgtgggtg ttttagaggt gaactcactg gaatggggat gcttgcattg
241 gtaactctac taagagctaa tagaaaggct aggaccaaac cagaaacctc caattctcat
301 gtggaagccc atgccctcac cctccaacat gaaagcctct gcagcacttc tgtgtctgct
361 gctcacagca gctgctttca gccccagggt gcttgcctag ccagttggga ttaatacttc
421 aactacctgc tgctacagat ttatcaataa gaaaatccct aagcagaggtc tggagagcta
481 cagaaggacc accagtagcc actgtccccg ggaagctgta atcttcaaga ccaaactgga
541 caaggagatc tgtgctgacc ccacacagaa gtgggtccag gactttatga agcacctgga
601 caagaaaacc caaactccaa agctttgaac attcatgact gaactgaaaa caagccatga
661 cttgagaaac aaataatttg tataccctgt cttttctcag agtggttctg agattatttt
721 aatctaattc taaggaatat gagctttatg taataatgtg aatcatggtt tttcttagta
781 gatttttaaa gttattaata ttttaattta atcttccatg gattttggtg ggttttgaac
841 ataaagcctt ggatgtatat gtcactctag tgctgtaaaa actgtgggat gctcctccct
901 tctctacctc atgggggtat tgtataagtc cttgcaagaa tcagtgcata gatttgcttt

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961 aattgttaag atatgatgtc cctatggaag catattgtta ttatataatt acatatttgc
1021 atatgtatga ctcccaaatt ttacacataaa atagattttt gtataacaaa aaaaaaaaaa
1081 aaaaa
1 ggatccttaa gccatcatgc aaaatatcta gccatgtgga gggaccactg gaaagatcac
61 acacacacac acacacacac acacacacac atacagagag agagagagag acctgagaaa
121 ttccatctgg tccaactgct ggctgttgaa gtccctccag cccagacccc agacactgaa
181 tgaaggcctt gtgatatagt caagagcaaa aaaaccaga agattgttat tgttttaagt
241 cactgttttc agatagattg ctatgcagca atagattatt gaaatagaca ctacaatttt
301 aggtactatt attctaagaa tattgaattt tattttctcg ctaatgttct attattttac
361 ttttctctgg gtttttagaa gccaccagga tttaagacag tgaagaatct ttgagtcctt
421 tgtagagttg aaccaaagt tgaatgtctc ttgtgtgact cgtgtcctag ggataccact
481 ccaaagggaa aaggggaata tcccttacat atccttgact ttggtatccc tgattccttc
541 ctttttctat agaattgtgc tcatttcaga gaaactggtc tcttgataat agccatagat
601 tacatactgt ggtcttcttc tacatagacc ctacctcacc taccactcct ggtcttagct
661 gaaaaacagg ctacgctcga ctcatactgt catttcctat cctccactg aagtgcactg
721 gctcagcaga tttattactc catagattta ttactccatt ctatgattca tctctctgctc
781 ttctataaaa aggcagagac agagcttcca gaggagcaga ggggctgaga ccaaaccaga
841 aacctccaat tctcatgtgg aagcccatgc cctcaccctc caacatgaaa gctctgcag
901 cacttctgtg tctgctgctc acagcagctg ctttcagccc ccaggggctt gctcagccag
961 gtaagggtccc tctctccttc tccttgaagc acattgcccc ctctctgggt tatcctggac
1021 caatcaagaa gacctgatac ccacagtctc actttaacag ctacttttcc aagataaggt
1081 aacttagaaa aaggataagg ggtgagccca accacacagc tgctgttggg tagagcctga
1141 actagaattc cagctgtgaa ccccaaatcc agctccttct aggattccag ctctgggaac
1201 accctcagtg cagttaccac tccagctgct tccagcagaa ttggggtaca ggggtatcaa
1261 agacaggagg cttctgggga tgggtgtgct ggctgtttcc agataccggg agaccagaaa
1321 tctgggtctgt ggaagccag cttccagaaa cagcagctct gcagagggtg tacgtatcag
1381 ggaaactcat gaccaagcat tgaatgtcga gaggctaaaa ggggatccat agttggggta
1441 cccttgcctc aaggaattgg attattatat tagcccctcc tagcaatgcc cagagtagcc
1501 atcaattcct ctcccgctt tcaactgggt atgggtgcac cctatttcac agtccataaa
1561 agtgaaaggg agtttatgaa atgcctcaaa gggcagagac attgggtttg ggatgggcag
1621 cttttccttc cacctcttcc tttctttctg attccttctt cttaccattc cctgttttac
1681 aaacagaaag acccaggaca caccctcaat ggacttttct tcttgttgtt tcttgcagt
1741 tgggattaat acttcaacta cctgtgcta cagatttctc aataagaaaa tccctaagca
1801 gaggtgag agctacagaa ggaccaccag tagccactgt ccccggaag ctgtaatgta
1861 tgtggacgat gaccaccac ccctcacacc tcagtcctag gttcttccct gggcagggaa
1921 taggactagt atcagaatga gttggagtca aatactgtga tgcatacagc atctctaacc
1981 ttatcccaga catttgccag tgagaacaa tacaagtaaa gaaagtgggt tctcactctc
2041 agtcccttt ccagctatca tttatcatct cagtctgttc cttcatcctg gaaccagag
2101 agattcactt gggctaccaaa aaagagctgc ttctctgagt cccctcctt tgttttatct
2161 tcttcttca tccctgaggc atccccatca gctaggctga tgggctagac agatttccca
2221 tagacttggg cacactcca ggctgaacc tcaaggtgtt ccatctgact gtctccttc
2281 tgctccacag cttcaagacc aaactggaca aggagatctg tgctgacccc acacagaagt
2341 ggtccagga ctttatgaag cacctggaca agaaaacca aactccaaag ctttgaacat
2401 tcatgactga actgaaaaca agccatgact tgagaaacaa ataatttga taccctgttc
2461 ttctcagag tgggtctgag attattttaa tctaattcta aggaatatga gctttatgta
2521 ataagtga tcatgtttt tcttagtaga ttttaaaagt tattaatatt ttaatttaat
2581 ctccatgga ttttgggtgg ttttgaacat aaagccttgg atgtatatgt catctcagt
2641 ctgtaaaaac tgtgggatgc tctcccttc tctacctcat gggggtattg tataagtcct
2701 tgcaagaatc agtgcaaaaga tttgctttaa ttgttaagat atgatgtccc tatggaagca
2761 tattgttatt atataattac atatttgc atgtatgact cccaaattt cacataaaat
2821 agatttttgt ataacagctg ccattcatgg ttttttaaag gataagtaat aaagctgggt
2881 ggta

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(2) INFORMATION FOR SEQ ID NO:2588:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 721 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2588

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1 aaccgagagg ctgagactaa cccagaaaga tccaattctc aaactgaagc tcgcactctc
61 gcctccagca tgaaagtctc tgccgcctt ctgtgcctgc tgctcatagc agccaccttc
121 attcccaaag ggctcgctca gccagatgca atcaatgcc cagtcacctg ctgttataac
181 ttaccaata ggaagatctc agtgcagagg ctgcgagct atagaagaat caccagcagc
241 aagtgtccca aagaagctgt gatcttcaag accattgtgg ccaaggagat ctgtgctgac
301 cccaagcaga agtgggttca ggattccatg gaccacctgg acaagcaaac ccaaactccg
361 aagacttgaa cactcactcc acaaccaag aatctgcagc taacttattt tcccctagct
421 ttcccagac accctgtttt attttattat aatgaatttt gttgttgat gtgaaacatt
481 atgccttaag taatgttaat tcttatttaa gttattgatg ttttaagttt atcttctcat

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541 gtactagtgt ttttagata cagagacttg gggaaattgc ttttctctt gaaccacagt
601 tctacccctg g gatgtttt agggctcttg caagaatcat taatacaaag aattttttt
661 aacattccaa tgcattgcta aaatattatt tgggaaatga atattttgta actattacac
721 caaataaata tttttttgta c

```

(2) INFORMATION FOR SEQ ID NO:2589:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1501 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2589

```

1 agcccatgtc ctctcttttc aggtgatgac tttcccctga ggaagccctg tagcgtgcct
61 ggagggaagg gctctccaac cccagcccca cctagccacc atgaacactt cagccccacc
121 tgctgtcagc cccaacatca ccgtccctggc accaggaaag ggtccctggc aagtggcctt
181 cattgggatc accacggggc tctgtgcgt agccacagt acaggcaacc tgctggctact
241 catctctttc aaggtcaaca cggagctcaa gacagtcaat aactacttcc tgctgagcct
301 ggctgtgct gacctcatca tccgtacctt ctccatgaac ctctatacca cgtacctgct
361 catggggcac tgggctctgg gcacgctggc ttgtgacctc tggctggccc tggactatgt
421 ggccagcaat gcctccgtca tgaatctgct gctcatcagc tttgaccgct acttctccgt
481 gactcggccc ctgagctacc gtgccaagcg cacaccccgc cgggcagctc tgatgatcgg
541 cctggcctgg ctggtttcct ttgtgctctg ggccccagcc atcctcttct ggcagtacct
601 ggtaggggag cggacgatgc tagctgggca gtgctacatc cagtctctct cccagcccat
661 catcaccttt ggcacagcca tggctgcctt ctacctccct gtcacagtca tgtgcacgct
721 ctactggcgc atctaccggg agacagagaa ccgagcacgg gagctggcag cccttcaggg
781 ctccgagacg ccaggcaaaag ggggtggcag cagcagcagc tcagagaggt ctacgccagg
841 ggctgagggc tcaccagaga ctctccagg ccgctgctgt cgctgtgccc gggccccag
901 ctgctgcag gcctacagct ggaaggaaga agaggaagag gacgaaggct ccatggagtc
961 cctcacatcc tcagagggag aggagcctgg ctccgaagt gtgatcaaga tgccaatggt
1021 ggaccccgag gcacaggccc ccaccaagca gcccccacgg agctcccaa atacagtcaa
1081 gaggccgact aagaaagggc gtgatcgagc tggcaagggc cagaagcccc gtggaaagga
1141 gcagctggcc aagcggaaga ccttctcgct ggtcaaggag aagaaggcgg ctccggaccct
1201 gagtggcatc ctctggcct tcctctcac ctggacaccg tacaacatca tgggtgtggt
1261 gtccaccttc tgcaaggact gtgttcccga gacctgtgg gagctgggt actggctgtg
1321 ctacgtcaac agcaccatca acccatgtg ctacgcactc tgcaacaaag ccttccggga
1381 cacctttcgc ctgctgtgct tttgccgctg ggacaagaga cgctggcgca agatcccaa
1441 gcgcctggc tccgtgcacc gcactccctc ccgccaatgc tgatagctcc ctctcctgca
1501 tcctccacc ccagtecccg gg

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(2) INFORMATION FOR SEQ ID NO:2590:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1561 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2590

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1 attttaaac aatgtttata ttatgtttgt taattttatt ctatttccct gcaggtttaa
61 atgtttattt gctacttggc tactgattag agaacgcaaa atgaataact caacaaactc
121 ctctaacaat agcctggctc ttacaagtcc ttataagaca tttgaagtgg tgtttattgt
181 cctggtggct ggatccctca gtttggtagc cattatcggg aacatccatg tcattggttc
241 cattaaagtc aaccgccacc tccagaccgt caacaattac tttttattca gcttggcctg
301 tgctgacctt atcatagggtg ttttctccat gaacttgtac accctctaca ctgtgattgg
361 ttactggcct ttgggacctg tgggtgtgta cctttggcta gccctggact atgtggtcag
421 caatgcctca gttatgaatc tgctcatcat cagctttgac aggtacttct gtgtcaciaa
481 acctctgacc taccagtcac agcggaccac aaaaatggca ggtatgatga ttgcagctgc
541 ctgggtcttc tctttcatcc tctgggctcc agccattctc ttctggcagt tcattgtagg
601 ggtgagaact gtggaggatg gggagtgtca cattcagttt tttccaatg ctgctgtcac
661 ctttggtagc gctattgcat ccttctattt gccagtgatc atcatgactg ctatattgtt
721 gcacatatcc cgagccagca agagcaggat aaagaaggac aagaaggagc ctgttgccaa
781 ccaagacccc gtttctccaa gtctgtgata aggaaggata gtgaagccaa acaataacaa
841 catgcccagc agtgacgatg gcctggagca caacaaaatc cagaatggca aagccccag
901 ggatccctgt actgaaaact gtgttcaggg agaggagaag gagagctcca atgactccac
961 ctcatgtcagt gctgttgctt ctaatatgag agatgatgaa ataaccagg atgaaaacac
1021 agtttccact tccctgggcc attccaaaga tgagaactct aagcaaacat gcacagaat
1081 tggcacciaag accccaaaaa gtgactcatg taccccaact aataccaccg tggaggtagt
1141 ggggtcttca ggtcagaatg gagatgaaaa gcagaatatt gtagcccgca agattgtgaa
1201 gatgactaag cagcctgcaa aaaagaagcc tctctcttcc cgggaaagaa aagtcaccag
1261 gacaatcttg gctattctgt tggctttcat catcacttgg gccccataca atgtcatggt
1321 gctcattaac accttttgtg caccttgcac ccccaacact gtgtggacaa ttggttactg

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1381 gctttgttac atcaacagca ctatcaaccc tgccctgctat gcactttgca atgccacctt
 1441 caagaagacc ttttaacacc ttctcatgtg tcattataag aacataggcg ctacaaggta
 1501 aaatatcttt gaaaaagata gaaggtgggc aaggggagct tgagaagaat aaaagggata
 1561 aacgagctc

(2) INFORMATION FOR SEQ ID NO:2591:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1681 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2591

1 tccagtgtac ctccagatga ctccccatt ccctcctgta gttcatgctt ttctctcccc
 61 ttctctccca gacacggcct acccaccctt ggcaaccaac atggccaact tcacacctgt
 121 caatggcagc tcgggcacac agtccgtgag cctgggtcac tcatcatccc acaatcgcta
 181 tgagacgggt gaaatggtct tcattgccac agtgacaggc tccctgagcc tgggtgactgt
 241 cgtgggcaac atcctggtga tgctgtccat caaggtcaac aggcagctgc agacagtcaa
 301 caactacttc ctcttcagcc tggcgtgtgc tgatctcatc ataggcgctt tctccatgaa
 361 cctctacacc gtgtacatca tcaagggcta ctggccccctg ggccgctgtg tctgcgacct
 421 gtggctggcc ctggactacg tggtagagaa cgcctccgtc atgaaccttc tcatcatcag
 481 ctttgaccgc tacttctgag tcaccaagcc tctcacctac cctggccggc gcaccaccaa
 541 gatggcaggc ctcatgattg ctgctgcctg ggtactgtcc ttctgtctct gggcgccctgc
 601 catcttgctt tggcagtttg tggtaggtaa gcggacgggt cccgacaacc agtgcttcat
 661 ccagtctctg tccaaccagc cagtgcctt tggcacagcc attgctgcct tctacctgcc
 721 tgtggtcatc atgacggtgc tgtacatcca catctccctg gccagtcgca gccgagtcca
 781 caagcaccgg cccgagggcc cgaaggagaa gaaagccaag acgctggcct tcctcaagag
 841 cccactaatg aagcagagcg tcaagaagcc cccgcccggt gaggccgccc gggaggagct
 901 gcgcaatggc aagctggagg aggcctcccc gccagcgctg ccaccgccac cgcgcccggt
 961 ggctgataag gacacttcca atgagtccag ctccaggcagt gccaccacga acaccaagga
 1021 acgcccagcc acagagctgt ccaccacaga ggccaccacg cccgccatgc cgcgccctcc
 1081 cctgcagccg cgggccctca acccagcctc cagatgggtc aagatccaga ttgtgacgaa
 1141 gcagacaggc aatgagtgtg tgacagccat tgagattgtg cctgccacgc cggctggcat
 1201 gcgccctgag gccaacgttg cccgcaagtt cgccagcctc gctcgcaacc aggtgcgcaa
 1261 gaagcggcag atggcggccc gggagcgcaa agtgacacga acgatctttg ccattctgct
 1321 agccttcctc ctacactgga cgcctacaaa cgtcatggtc ctggtgaaca ccttctgcca
 1381 gagctgcctc cctgacacgy tgtgtccat ttggtactgg ctctgctacg tcaacagcac
 1441 catcaaccct gcctgtctat ctctgtgcaa cgccaccttt aaaaagacct tccggcacct
 1501 gctgctgtgc cagtatcgga acatcggcac tgccaggtag gcaggcagga gtgccctagg
 1561 aggtgctggt gttgctgctg tgtgctgggg ggaccacacg gctcacttgc tgtggggaag
 1621 agttgcaggc accattctgc gttcacgttt gctgaggagg aagttcagaa gaggctctgt
 1681 ggctgcattc agagaccaga tct

(2) INFORMATION FOR SEQ ID NO:2592:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1861 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2592

1 tcttttaacg tatgtaatgc aaagaacaaa caaataaagg cagaaatttt tctaactctg
 61 ttctctctct ctttcccca gactatgtca gagagtaca atgacctgc acaataacag
 121 tacaacctcg cctttgtttc caaacatcag ctctcctggt atacacagcc cctccgatgc
 181 agggctgccc ccgggaaccg tactcattt cggcagctac aatgtttctc gaggcagctg
 241 caatttctcc tctccagacg gtaccacga tgacctctg ggaggtcata ccgtctggca
 301 agtggctctc atcgctttct taacgggcat cctggccttg gtgaccatca tcggcaacat
 361 cctggtaatt gtgtcattta aggtcaacaa gcagctgaag acggtcaaca actacttctt
 421 cttaagcctg gcctgtgccc atctgattat cggggctcatt tcaatgaatc tgtttacgac
 481 ctacatcatc atgaatcgat gggccttagg gaacttgccc tgtgacctct ggttgccat
 541 tgactacgta gccagcaatg cctctgttat gaattctctg gtcacagct ttgacagata
 601 cttttccatc acgaggccgc tcacgtaccg agccaaacga acaacaaaga gagccggtgt
 661 gatgatcggt ctggcttggg tcatctcctt tgtcctttgg gctcctgcca tcttgttctg
 721 gcaatacttt gttggaaaga gaactgtgcc tccgggagag tgcttcattc agttcctcag
 781 tgagcccacc attacttttg gcacagccat cgctgctttt tatatgcctg tcaccattat
 841 gactatttta tactggagga tctataagga aactgaaaag cgtaccaaag agcttgctgg
 901 cctgcaagcc tctgggacag aggcagagac agaaaacttt gtccaccoca cgggcagttc
 961 tcgaagctgc agcagttacg aacttcaaca gcaaagcatg aaacgtccca acaggaggaa
 1021 gtatggccgc tgccacttct ggttcacaac caagagctgg aaaccagct ccgagcagat
 1081 ggaccaagac cacagcagca gtgacagttg gaacaacaat gatgctgctg cctccctgga
 1141 gaactccgcc tctccgacg agggagacat tggctccgag acgagagcca tctactccat

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1201 cgtgctcaag ctcccggtc acagcaccat cctcaactcc accaagttac cctcatcgga
1261 caacctgcag gtgcctgagg aggagctggg gatggtggac ttggagagga aagccgacaa
1321 gctgcaggcc cagaagagcg tggacgatgg aggcagtttt ccaaaaagct tctccaagct
1381 tccccatccag ctagagtcag ccgtggacac agctaagact tctgacgtca actcctcagt
1441 gggtaagagc acggccactc tacctctgtc cttcaaggaa gccactctgg ccaaggaggtt
1501 tgctctgaag accagaagtc agatcactaa gcggaaaagg atgtccctgg tcaaggagaa
1561 gaaagcggcc cagacctca gtgcgatctt gcttgcttcc atcatcactt ggaccccata
1621 caacatcatg gttctgtgga acacctttt tgacagctgc ataccacaaa ccttttgtaa
1681 tctgggctac tggctgtgct acatcaacag caccgtgaac cccgtgtgct atgctctgtg
1741 caacaaaaca ttcagaacca ctttcaagat gctgctgctg tggcagtggt acaaaaaaaa
1801 gaggcgcaag cagcagtacc agcagagaca gtcggtcatt tttcacaagc gcgcaccgga
1861 gcaggccttg tagaatgagg ttgtatcaat agcagtgaac aaacgacaca tca

```

(2) INFORMATION FOR SEQ ID NO:2593:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 6604 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2593

```

1 agcccatgtc ctctcttttc aggtgatgac ttccccctga ggaagccctg tagcgtgcct
61 ggaggaagg gctctccaac cccagcccca cctagccacc atgaacactt cagccccacc
121 tgctgtcagc cccaacatca ccgtcctggc accaggaaag ggtccctggc aagtggcctt
181 cattgggagc accacgggcc tctgtctgct agccacagtg acaggcaacc tgctggtact
241 catctctttc aaggtcaaca cggagctcaa gacagtcaat aactacttcc tgctgagcct
301 ggctgtgctg gacctcatca tcggtacctt ctccatgaac ctctatacca cgtacctgct
361 catggggccac tgggctctgg gcacgtgggc ttgtgacctc tggctggccc tggactatgt
421 ggccagcaat gcctccgtca tgaatctgct gctcatcagc ttgaccgct acttctccgt
481 gactcggccc ctgagctacc gtgccaagcg cacaccccg cggcagctc tgatgatcgg
541 cctggcctgg ctggtttcct ttgtgctctg ggccccagcc atcctcttct ggcagtacct
601 ggtaggggag cggacgatgc tagctgggca gtgctacatc cagttcctct cccagcccat
661 catcaccttt ggcacagcca tggctgcctt ctacctcct gtacacagtc tgtgcacgct
721 ctactggcgc atctaccggg agacagagaa ccgagcacgg gagctggcag cccttcaggg
781 ctccgagagc ccaggcaaa ggggtggcag cagcagcagc tcagagaggt ctcagccagg
841 ggctgagggc tcaccagaga ctctccagc ccgctgctgt cgctgctgcc gggccccag
901 gctgctgcag gcctacagct ggaaggaaga agaggaagag gacgaaggct ccatggagtc
961 cctcacatcc tcagagggag aggagcctgg ctccgaagt gtgatcaaga tgccaatggt
1021 ggaccccgag gcacaggccc ccaccaagca gccccacgg agtccccaa atacagtcaa
1081 gaggccgact aagaaagggc gtgatcgagc tggcaagggc cagaagcccc gtggaaagga
1141 gcagctggcc aagcgggaaga cttctctgct ggtcaaggag aagaaggcgg ctccgacctt
1201 gactgcccac ctcttgacct tcactctcac ctggacaccg tacaacatca tgggtctggt
1261 gtccaccttc tgcaaggact gtgttcccga gacctgtgg gagctgggct actggctgtg
1321 ctacgtcaac agcaccatca acccatatgt ctacgcactc tgcaacaaag ccttccggga
1381 cactttctgc ctgctgctgc ttgtccgctg ggacaagaga cgctggcgca agatcccaa
1441 gcgcctctgg tccgtgcacc gactccctc ccgccaatgc tgatagtcct ctctctgca
1501 tccctccacc ccagtcctcc gg
1 attttaaac aatgtttata ttatgtttgt taattttatt ctatttctt gcaggtttaa
61 atgtttattt gctacttggc tactgattag agaacgcaa atgaataact caacaaactc
121 ctctaacaat agcctggctc ttacaagtcc ttataagaca ttgaagtgg tgtttattgt
181 cctggtggct ggatccctca gtttggtagc cattatcggg aacatcctag tcatggtttc
241 cattaaagtc aaccgccacc tccagaccgt caacaattac tttttattca gcttggcctg
301 tgctgacctt atcatagtg ttttctccat gaacttgtac accctctaca ctgtgattgg
361 ttactggcct ttgggacctg tgggtgtgta cctttggcta gccctggact atgtggtcag
421 caatgctca gttatgaatc tgctcatcat cagctttgac aggtacttct gtgtcacaaa
481 acctctgacc taccagtca agcggaccac aaaaatggca ggtatgatga ttgcagctgc
541 ctgggtctct tctttcatcc tctgggctcc agccattctc ttctggcagt tcattgtagg
601 ggtgagaact gtggaggatg gggagtgtca cattcagttt tttccaatg ctgctgtcac
661 ctttggtagc gctattgcag cttctattt gccagtgatc atcatgactg tgctatattg
721 gcacatatcc cgagccagca agagcaggat aaagaaggac aagaaggagc ctgttgccaa
781 ccaagacccc gtttctccaa gtctgtgata aggaaggata gtgaagccaa acaataacaa
841 catgcccagc agtgacgatg gcctggagca caacaaaatc cagaatggca aagccccag
901 ggatctctgt actgaaaact gtgttcaggg agaggagaag gagactcca atgactcac
961 ctcagtcagt gctgttgctt ctaatatgag agatgatgaa ataaccagc atgaaaacac
1021 agtttccact tccctgggcc attccaaaga tgagaactct aagcaaacat gcatacagaat
1081 tggcaccaag accccaaaaa gtgactcatg taccacaaat aataccaccg tggaggtagt
1141 ggggtcttca ggtcagaatg gagatgaaaa gcagaatatt gtaggccgca agattgtgaa
1201 gatgactaag cagcctgcaa aaaagaagcc tctctcttcc cgggaaaaga aagtcaccag
1261 gacaatcttg gctattctgt tggctttcat catcacttgg gcccataca atgtcatggt
1321 gctcattaac accttttgtg caccttgcac cccaacact gttgggacaa ttggttactg

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1381 gctttgttac atcaacagca ctatcaaccc tgcctgctat gcactttgca atgccacctt
1441 caagaagacc tttaaacacc ttctcatgtg tcattataag aacataggcg ctacaaggta
1501 aaatatcttt gaaaaagata gaaggtgggc aaggggagct tgagaagaat aaaaggata
1561 aacgagctc
1 tccagtgtac ctccagatga ctccccatt cctcctgta gttcatgctt ttctctcccc
61 ttctctccca gacacggcct acccaccctt ggcaaccaac atggccaact tcacacctgt
121 caatggcagc tggggcaatc agtccgtgag cctgggtcacg tcatcatccc acaatcgcta
181 tgagacgggtg gaaatggtct tcattgccac agtgacaggc tccctgagcc tggtgactgt
241 cgtgggcaac atcctggtga tgcgtgccat caaggtcaac aggcagctgc agacagtcaa
301 caactacttc ctcttcagcc tggcgtgtgc tgatctcatc ataggcgctt tctccatgaa
361 cctctacacc gtgtacatca tcaagggcta ctggcccttg ggcggcgttg tctgacact
421 gtggctggcc ctggactacg ttgtgagcaa cgcctccgtc atgaaccttc tcatcatcag
481 ttttgaccgc tacttctgag tcaccaagcc tctcacctac cctgcccggc gcaccacca
541 gatggcagc ctcatgattg ctgctgctg ggtactgtcc ttctgtctct gggcgctgc
601 catcttgttc tggcagtttg ttgtgggtaa gcggacgggtg cccgacaacc agtgcttcat
661 ccagttcctg tccaaccag cagtgcactt tggcacagcc attgctgctt tctactgccc
721 tgtggtcatc atgacgggtg tgtacatcca catctccctg gccagtcgca gccgagtcga
781 caagcaccgg cccgagggcc cgaaggagaa gaaagccaag acgttggcct tctcaagag
841 cccactaatg aagcagagcg tcaagaagcc cccgcccggg gaggccccc gggaggagct
901 gcgcaatggc aagctggagg agggccccc gccagcgctg ccaccggcac cggcccccgt
961 ggctgataag gacacttcca atgagtccag ctacggcagt gccaccaga acaccaagga
1021 acgcccagcc acagagctgt ccaccacaga ggccaccacg cccgccatgc ccgcccctcc
1081 cctgcagccg cgggcccctca acccagcctc cagatgggtc aagatccaga ttgtgacgaa
1141 gcagacagc aatgagtgtg tgacagccat tgagattgtg cctgccacgc cggctggcat
1201 gcgccttgcg gccaacgttg cccgcaagtt cgccagcatc gctcgcgaac aggtgcgcaa
1261 gaagcggcag atggcggccc gggagcgcaa agtgacacga acgatctttg ccattctgct
1321 agccttcac ctcacctgga cgcctacaa cgtcatggtc ctggtgaaca ccttctgcca
1381 gagctgcac cctgacacgg tgtggtccat ttggtactgg ctctgctacg tcaacagcac
1441 catcaaccct gcctgctatg ctctgtgcaa cgccaccttt aaaaagacct tccggcactt
1501 gctgctgtgc cagtatcgga acatcggcac tgccaggtag gcaggcagga gtgccctagg
1561 aggtgctggt gttgctgagc tgtgctgggg ggaccacacg gctcacttgc tgtggggaag
1621 agttgcagc accattctgc gttcacgttt gctgaggagg aagttcagaa gaggctctgt
1681 ggctgcattc agagaccaga tct
1 tcttttaacg tatgtaatgc aaagaacaaa caaataaagg cagaaatttt tctaactctg
61 tctcttctct ctttccccc gactatgtca gagagtcaca atgaccttgc acaataacag
121 tacaacctcg cttttgttcc caaacatcag ctccctcttg atacacagcc cctccgatgc
181 agggctgccc cggggaaccg tcaactattt cggcagctac aatgtttctc gagcagctgg
241 caatttctcc tctccagacg gtaccacga tgacctctg ggaggtcata cgtcttgga
301 agtggctctc atcgctttct taacgggcat cctggccttg gtgacctca tcggcaacat
361 cctggtaatt gtgtcattta aggtcaacaa gcagctgaag acggtcaaca actacttctt
421 cttaagcctg gcctgtgccc atctgattat cggggtcatt tcaatgaatc tgtttacgac
481 ctacatcacc atgaatcgat gggccttagg gaacttggcc tgtgacctct ggcttgccat
541 tgactacgta gccagcaatg cctctgttat gaacttctg gtcacagct ttgacagata
601 cttttccatc acgagggccc tcacgtaccg agccaaacga acaacaaag gagccggtgt
661 gatgatcggt ctggccttgg tcatctcctt tgtcctttgg gctcctgcca tcttgtctg
721 gcaatacttt gttggaaga gaactgtgcc tccgggagag tgccttcttc agttcctcag
781 tgagcccacc attacttttg gcacagccat cgctgctttt tatatgctg tcaccattat
841 gactatttta tactggagga tctataagga aactgaaaag cgtaccaaag agcttgctgg
901 cctgcaagcc tctgggacag aggcagagac agaaaacttt gtccacccca cgggcagttc
961 tcgaagctgc agcagttacg aacttcaaca gcaaaagcatg aaacgctcca acaggaggaa
1021 gtatggccgc tgcacttct ggttcacaac caagagctgg aaacccagct ccgacagat
1081 ggaccaagac cacagcagca gtgacagttg gaacaacaat gatgctgctg cctccctgga
1141 gaactccgcc tctccgacg agggagacat tggctccgag acgagagcca tctactccat
1201 cgtgctcaag cttccgggtc acagcaccat cctcaactcc accaagttac cctcatcgga
1261 caacctgcag gtgcctgagg aggagctggg gatggtggac ttggagagga aagccgacaa
1321 gctgcaggcc cagaagagcg tggacgatgg aggcagtttt ccaaaaagct tctccaagct
1381 tcccatccag ctagagtcag ccgtggacac agctaagact tctgacgta actcctcagt
1441 gggtaagagc acggccactc tacctctgtc cttcaaggaa gccactctgg ccaaggagtt
1501 tgcctctgaag accagaagtc agatcactaa cgggaaaagg atgtcccttg tcaaggagaa
1561 gaaagcggcc cagaccctca gtgcgactct gcttgcttct atcatcactt ggaccccata
1621 caacatcatg gttctggtga acaccttttg tgacagctgc ataccacaaa ccttttgga
1681 tctgggctac tggctgtgct acatcaacag caccgtgaac cccgtgtgct atgctctgtg
1741 caacaaaaca ttcagaacca ctttcaagat gctgctgctg tgcagtggtg acaaaaaaaa
1801 gaggcgcaag cagcagtagc agcagagaca gtcggtcatt tttcacaagc gcgcaccgga
1861 gcaggccttg tagaatgagg ttgtatcaat agcagtgaac aaacgacaca tca

(1) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1201 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2594

```

1 atggataacg tctctccggt ggactcagac ctctcccaa acatctccac taacacctcg
61 gaacccaatc agttcgtgca accagcctgg caaattgtcc tttgggcagc tgcttacacg
121 gtcattgtgg tgacctctgt ggtgggcaac gtggtagtga tgtggatcat cttagccac
181 aaaagaatga ggacagtga gaactatctt ctggtgaacc tggccttcgc ggaggcctcc
241 atggtgcat tcaatacagt ggtgaacttc acctatgctg tccacaacga atggtactac
301 ggcctgttct actgcaagtt ccacaacttc ttccccatcg ccgcttgctt cgccagtatc
361 tactccatga cggctgtggc cttgatagg tacatggcca tcatacatcc cctccagccc
421 cggctgtcag ccacagccac caaagtggtc atctgtgtca tctgggtcct ggctctcctg
481 ctggccttcc cccagggcta ctactcaacc acagagacca tgcccagcag agtcgtgtgc
541 atgatcgaat ggccagagca tccgaacaag atttatgaga aagtgtacca catctgtgtg
601 actgtgctga tctacttctt cccctgctg gtgattggct atgcatacac catagtggga
661 atcacactat gggccagtga gatccccggg gactcctctg accgctacca cgagcaagtc
721 tctgccaagc gcaaggtggt caaaatgatg attgtcgtgg tgtgcacctt cgccatctgc
781 tggctgcctt tccacatctt cttcctcctg ccctacatca acccagatct ctacctgaag
841 aagtttatcc agcaggtcta cctggccatc atgtggctgg ccatgagctc caccatgtac
901 aaccccatca tctactgtg cctcaatgac aggttccgtc tgggcttcaa gcatgccttc
961 cggtgctgcc ctttcatcag cgccggcgac tatgaggggc tggaaatgaa atccaccggg
1021 tatctccaga cccaggcgag tgtgtacaaa gtcagccgcc tggagaccac catctccaca
1081 gtggtggggg cccacgagga ggagccagag gacggcccca aggcacacc ctcgctcctg
1141 gacctgacct ccaactgctc ttcacgaagt gactccaaga ccatgacaga gagcttcagc
1201 ttctctcca atgtgctctc ctaggatcc

```

(2) INFORMATION FOR SEQ ID NO:2595:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1741 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2595

```

1 ctattgcagt atctttcagc ttccagttct atctgaagac cccggcacca aagtgaccag
61 gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg
121 tccgggactg cagaccgtg gcgatggcca ctctcccagc agcagaaacc tggatagacg
181 ggggtggagg cgtgggtgca gacgccgtga acctgaccgc ctgctagctt gccggggcgg
241 ccacgggggc agttgagact ggtgggtgca aactgctgga ccaagctggc aacctctcct
301 cctccccctt cgcgctggga ctgctgtgg cttccccgcg gccctccagc ccctgggcca
361 acctcaccaa ccagttcgtg cagccgtcct ggccatcgc gctctggtcc ctggcgatg
421 gtgtggtggt ggcagtggca gtttgggaa atctcatcgt catctggatc atcctggccc
481 acaagcgcat gaggactgtc accaactact tcttggtaa cctggcttcc tccgacgctt
541 ccatggccgc cttcaacacg ttgtcaatt tcatctacgc gcttcatagc gagtgtactt
601 ttggcgccaa ctactgccgc ttccagaact tctttcctat cacagctgtg ttccgcagca
661 tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat cccttgaac
721 ccagactgtc tgctacagca accaagattg tcattggaag tatttgatt ctgactttc
781 tacttgctt ccctcagtg ctttattcca aaaccaaagt catgccaggc cgtactctct
841 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccattat atcgtcatta
901 tactggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta
961 ctctctgggg aggagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg
1021 ccaaaagaaa ggttgtcaaa atgatgatta ttgttgtcat gacatttgct atctgctggc
1081 tgccctatca tatttacttc attctcactg caatctatca acaactaaat agatggaaat
1141 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
1201 ccatcatcta ctgctgtctg aataaaagat ttcgagctgg cttcaagaga gcatttcgct
1261 ggtgtccttt catcaaaagt tccagctatg atgagctaga gctcaagacc accaggtttc
1321 atccaaaccg gcaaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt
1381 ttgaccccaa cgatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag
1441 acccaagttt caatggctgc tctcgagga attccaaatc tgccctcgcc acttcaagtt
1501 tcataagctc accctatacc tctgtggatg aatattctta attccatttc ctgaggtaaa
1561 agattagtgt gagaccatca tgggtccagt ctaggacccc attctcctat ttatcagtc
1621 tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga
1681 aaggtagtgt ataaatgtga caaagacact aataacatgt tagcctccac ccaaaataaa
1741 atgggcttta aattt

```

(2) INFORMATION FOR SEQ ID NO:2596:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1141 base pairs
- (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2596

```

1  atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc
61  acgggcatca cagccttctc catgccagc tggcagctgg cactgtgggc accagccta'c
121 ctggccctgg tgctgggtgc cgtgacgggt aatgccatcg tcatctggat catcctggcc
181 catcgaggga tgcgcacagt caccaactac ttcatcgtca atctggcgct ggctgacctc
241 tgcattggctg ccttcaatgc cgccttcaac tttgtctatg ccagccacaa catctggtac
301 tttggccgtg cttctgtcta cttccagaac ctcttcccca tcacagccat gttgttcagc
361 atctactcca tgaccgccat tgctgccgac aggtacatgg ccatcgtcca ccccttccag
421 cctcggtctt cagctcccag caccaaggcg gttattgctg gcactctggct ggtggctctc
481 gccctggcct cccctcagtg cttctactcc accgtcacca tggaccaggg tggccaccaag
541 tgctgtgtgg cctggcccga agacagcggt ggcaagacgc tctcctgtga ccactcgtg
601 gtgatcgccc tcatctactt cctgccgctc gcggtgatgt ttgtagccta cagcgtcatc
661 ggccctcagc tctggaggcg cgcagtgcgc ggacatcagg cgcacggtgc caacctccgc
721 catctgcagg ccaagaagaa accatgggtg tgggtgtgct gtcgtttgcc
781 atctgtgtgc tgccctacca cctctacttc atcctgggca gcttccagga ggacatctac
841 tgccacaagt tcatccagca agtctacctg gcactcttct ggttggccat gagctctacc
901 atgtacaatc ccatcatcta ctgtgtctc aaccacaggt ttcgctctgg gttccggctt
961 gccctccgct gctgcccatg ggtcacaccc accaaggaag ataagctcga gctgactccc
1021 acgacctccc tctccacgag agtcaacagg tgtcacacta aggagacttt gttcatggct
1081 ggggacacag cccctccga ggctaccagt ggggaggcgg ggcgtcccca ggtggatca
1141 gggctatggt ttgggtatgg tttgcttgcc cccacaaaaa ctcattgtga aatttga

```

(2) INFORMATION FOR SEQ ID NO:2597:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4083 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2597

```

1  atggataacg tctcccggt ggactcagac ctctcccaa acatctccac taacacctcg
61  gaacccaatc agttcgtgca accagcctgg caaattgtcc tttgggcagc tgcttacacg
121 gtcattgtgg tgacctctgt ggtgggcaac gtggtagtga tgtggatcat cttagccac
181 aaaagaatga ggacagtgc gaactatctt ctggtgaacc tggccttcgc ggaggcctcc
241 atgggtgcat tcaatacagt ggtgaacttc acctatgctg tccacaacga atggtactac
301 ggccgtgtct actgcaagtt ccacaacttc ttccccatcg ccgcttgctt cgcagtatc
361 tactccatga cggtgtggc ctttgatagg tacatggcca tcatacatcc cctccagccc
421 cggtgtgcag ccacagccac caaagtggtc atctgtgtca tctgggtcct ggtctctctg
481 ctggccttcc cccagggtca ctactcaacc acagagacca tgcccagcag agtctgtgtg
541 atgatcgaat ggccagagca tccgaacaag atttatgaga aagtgtacca catctgtgtg
601 actgtgctga tctacttct cccctgctg gtgattggct atgcatacac catagtggga
661 atcacactat gggccagtga gatccccggg gactcctctg accgctacca cgagcaagtc
721 tctgccaagc gcaagtggt caaaatgatg attgtcgtgg tgtgcacct cgccatctgc
781 tggttgccct tccacatctt ctctctctg ccctacatca acccagatct ctacctgaag
841 aagtttatcc agcaggtcta cctggccatc atgtggctgg ccatgagctc caccatgtac
901 aaccccatca tctactgtg cctcaatgac aggttccgtc tgggcttcaa gcatgccttc
961 cggtgtgctc ctttcatcag cgcggcgac tatgaggggc tggaaatgaa atccaccggg
1021 tatctccaga cccaggcgag tgtgtacaaa gtcagccgcc tggagaccac catctccaca
1081 gtggtggggg cccacgagga ggagccagag gacggcccca aggccacacc ctgctccctg
1141 gacctgacct ccaactgtct ttcacgaagt gactccaaga ccatgacaga gagcttcagc
1201 tctctctcca atgtgtctc ctagggatcc
1  ctattgcagt atcttccagc ttccagtctt atctgaagac cccggcacca aagtgaccag
61  gaggcagaga agaacttcag aggagtctcg tcttgggctg cccgtgggtg agtgggaggg
121 tccgggactg cagaccggtg gcgatggcca ctctcccagc agcagaaacc tggatagacg
181 ggggtggagg cgtgggtgca gacgccgtga acctgaccgc ctctagatgt gccggggcgg
241 ccacgggggc agttgagact ggtgtgctgc aactgctgga ccaagctggc aacctctctt
301 cctccccctc cgcgtggga ctgcctgttg cttccccgc gccctccag ccttgggcca
361 acctaccaca ccagttcgtg cagccgtcct ggcgcacgc gctctggtc ctggcgatg
421 gtgtgggtgt ggcagtggca gttttggaa atctcatcgt catctggatc atctggccc
481 acaagcgcag gaggactgtc accaactact tcttgtgaa cctggcttct tccgacgctt
541 ccatggccgc cttcaacacg ttggtcaatt tcatctacgc gcttcatagc gagtgggtact
601 ttggcgccaa ctactgccgc ttccagaact tctttctat cacagctgtg ttcgccagca
661 tctactccat gacggccatt gcggtggaca ggtatatggc tattattgat ccttggaaac
721 ccagactgtc tgctacagca accaagattg tcattggaag tatttgatt ctagcatttc
781 tacttgccct cctcagtggt ctttattcca aaacaaagt catgccagc cgtactctct
841 gctttgtgca atggccagaa ggtcccaaac aacatttcac ttaccatatt atcgtcatta
901 tactggtgta ctgtttccca ttgctcatca tgggtattac atacaccatt gttggaatta
961 ctctctgggg aggagaaatc ccaggagata cctgtgacaa gtatcatgag cagctaaagg

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1021 ccaaaagaaa ggttggtcaaa atgatgatta ttgttgatcat gacatttgcct atctgctggc
 1081 tgccctatca tatttacttc attctcactg caatctatca acaactaaat agatggaaat
 1141 acatccagca ggtctacctg gctagctttt ggctggcaat gagctcaacc atgtacaatc
 1201 ccatcatcta ctgctgtctg aataaaagat ttcgagctgg ctcaagaga gcatttcgct
 1261 ggtgtccttt catcaaagt tccagctatg atgagctaga gctcaagacc accaggtttc
 1321 atccaaaccg gcaaagcagt atgtacaccg tgaccagaat ggagtccatg acagtcgtgt
 1381 ttgaccccaa cgatgcagac accaccaggt ccagtcggaa gaaaagagca acgccaagag
 1441 acccaagttt caatggctgc tctgcagga attccaaatc tgccctcgcc acttcaagtt
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 1561 agattagtgt gagaccatca tgggtgccagt ctaggacccc attctcctat ttatcagttc
 1621 tgtcctatat accctctaga aacagaaagc aatttttagg cagctatggt caaattgaga
 1681 aaggtagtgt ataaatgtga caaagacact aataacatgt tagcctccac ccaaaataaa
 1741 atgggcttta aattt
 1 atggggacct gtgacattgt gactgaagcc aatatctcat ctggccctga gagcaacacc
 61 acgggcatca cagccttctc catgcccagc tggcagctgg cactgtgggc accagcctac
 121 ctggccctgg tgctggtggc cgtgacgggt aatgccatcg tcatctggat catcctggcc
 181 catcggagga tgcgcacagt caccaactac ttcacgtca atctggcgtt ggctgacctc
 241 tgcattggctg ccttcaatgc cgccttcaac tttgtctatg ccagccacaa catctggtac
 301 tttggccgtg ccttctgcta cttccagaac ctcttcccca tcacagccat gtttctcagc
 361 atctactcca tgaccgccat tgcgtccgac aggtacatgg ccacgttcca ccccttccag
 421 cctcggcttt cagctcccag caccaaggcg gttattgctg gcactctggc ggtggctctc
 481 gccctggcct cccctcagtg cttctactcc accgtcacca tggaccaggg tgccaccaag
 541 tgcgtggtgg cctgcccga agacagcggg ggcaagacgc tccctctgta ccacctgctg
 601 gtgatcgccc tcatctactt cctgcccgtc gcggtgatgt ttgtagccta cagcgtcatc
 661 ggcctcacgc tctggaggcg cgcagtggcc ggacatcagg cgcacgggtc caacctccgc
 721 catctgcagg ccaagaagaa gtttgtgaag accatgggtg tgggtggtgt gacgtttgcc
 781 atctgctggc tgccctacca cctctacttc atcctgggca gcttccagga ggacatctac
 841 tgccacaagt tcatccagca agtctacttg gcactcttct ggttggccat gagctctacc
 901 atgtacaatc ccatcatcta ctgctgtctc aaccacaggt ttcgctctgg gttccggctt
 961 gccttccgct gctgcccatt ggtcacaccc accaagggaag ataagctcga gctgactccc
 1021 acgacctccc tctccacgag agtcaacagg tgtcacacta aggagacttt gttcatggct
 1081 ggggacacag cccctccga ggctaccagt ggggaggcgg ggcgtcccca ggatggatca
 1141 gggctatggt ttgggtatgg tttgcttgcc cccacaaaaa ctcatgttga aatttga

(2) INFORMATION FOR SEQ ID NO:2598:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1501 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2598

1 ctccataagg cacaacttt cagagacagc agagcacaca agcttctagg acaagagcca
 61 ggaagaaacc accggaagga accatctcac tgtgtgtaaa catgacttcc aagctggccg
 121 tggctctctt ggcagccttc ctgatttctg cagctctgtg tgaagggtga gttttgccaa
 181 ggagtgtctaa agaacttga tgctagtgca taaagacata ctccaaacct ttccacccca
 241 aatttatcaa agaactgaga gtgattgaga tgggaccaca ctgcccacac acagaaatta
 301 ttgtaaagct ttctgatgga agagagctct gtctggaccc caaggaaaac tgggtgcaga
 361 gggttggtga gaagttttt aagagggctg agaattcata aaaaaattca ttctctgtgg
 421 tatccaagaa tcagtgaaga tgccagtga acttcaagca aatctacttc aacacttcat
 481 gtattgtgtg ggtctgttgt aggggttgcca gatgcaatac aagattcctg gttaaatttg
 541 aatttcagta aacaatgaat agtttttcat tgtaccatga aatatccaga acatacttat
 601 atgtaaagta ttatttattt gaacttaca aaaacaacaa ataattttta aatataagga
 661 tttctctaga tattgcacgg gagaatatac aaatagcaaa attgggcca ggccaagag
 721 aatatccgaa ctttaatttc aggaattgaa tgggtttgct agaattgtat atttgaagca
 781 tcacataaaa atgatgggac aataaatttt gccataaagt caaatttagc tggaaatcct
 841 ggattttttt ctgttaaate tggcaaccct agtctgctag ccaggatcca caagtccttg
 901 ttccactgtg ccttgggttc tctttattt ctaagtggaa aaagtattag ccaccatctt
 961 acctcacagt gatgttgatg ggacatgtg aagcacttta agtttttca tcataacata
 1021 aattattttc aagtgttaact tattaacctt tttattattt atgtatttat ttaagcatca
 1081 aatattttgt caagaatttg gaaaaataga agatgaatca ttgattgaat agttataaag
 1141 atgttatagt aaatttattt tattttagat attaaatgat gttttattag ataaatttca
 1201 atcagggttt ttagattaaa caaacaacaa attgggtacc cagttaaatt ttcatctcag
 1261 atatacaaca aataattttt tagtataagt acattattgt ttatctgaaa ttttaattga
 1321 actaacaatc ctagtgtgat actcccagtc ttgtcattgc cagctgtggt ggtagtgtg
 1381 tgttgaatta cggaataatg agttagaact attaaaacag ccaaaactcc acagctcaata
 1441 ttagtaattt cttgctggtt gaaacttggt tattatgtac aaatagattc ttataatatt
 1501 atttaaatga ctgcattttt aaatacaagg ctttatattt ttaactttta aaaaaaccgg

(2) INFORMATION FOR SEQ ID NO:2599:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1561 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2599

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1 gaattctctc tccagcagcc ctgccagatg cccgcccagc ccctgcctca ggcggggagg
61 gcttcaggga agctcaccaa ggcagaaggg cgggagagat tgtcagagcc ccagctggtg
121 tccagggaact gaccgtgagc ctgggtgaaa gtgagttccc cgttgaggcc aacagacgag
181 gagaggatgg aaggcctggc ccccaagaat gagccctgag gttcagggag cggctggagt
241 gagccggccc cagatctccg tccagctgag ggtcccagag gcctggggtta cactcgagc
301 tcctggggga ggcccttgac gtgctcagt tcccaaacag gaacctggg aaggaccaga
361 gaagtgccta ttgcgcagt agtgcccagc acagctgcat gtggccggtg tcacagggcc
421 ctgggtaaac tgaggcagg gacacagctg catgtggccg gtatcacagg gccctgggtg
481 aactgaggca ggcgacacag ctgcatgtgg ccggtatcac agggccctgg gtaactgag
541 gcaggcgaca cagctgcatg tggccgtatc acagggccct gggtaactg aggcaggtga
601 cacagctgca tgtggccggt atcacggggc cctggataaa cagaggcagg cgacacagct
661 gcatgtggcc ggtatcacgg ggccctgggt aaactgaggc aggcgaggcc acccccatca
721 agtccctcag gtctaggttt ggcaggtttg gcaaaaacac agcaacgctc ggttaaactc
781 gaatttcggg taagtatatc ctgggacctc ttggaagag acttagatta aaaaaaaac
841 gtgcgagcca gcccgcccaa cacggtgaaa ccccgctctc actaaaaata caaaaaatta
901 gccaggcgca gtggctcacg cctgtgatcc cagcactctg ggaggctgag gcaggcggat
961 ccccgagggt cagatgttca agaccagcct ggccgacagg gcgaaacact gtctctacta
1021 caaatacaaaa aattagccgg gagtggtggc aggtgcctgt aatctcagct attcaggagg
1081 ctgaggcgagg agaatacactt gaacctggga ggcggagggt gccgtgagcc gggatcacgc
1141 caccgcactc cagcctgggc gatagagcaa gactctgtct ccaaaaaaat aaattaaaaa
1201 acccacattg attatctgac atttgaatgc gattgtgcat cctgaatttt gtctggaggc
1261 cccacccgag ccaatccagc gtcttgtccc cttctcccc cttttcatca acgcccgtg
1321 ccaggggaga ggaagtggag ggcgtggccc ggccgtgggg caatgcaacg gcctcccagc
1381 acagggctat aagaggagcc gggcgggcac ggaggggcag agaccccgga gccccagccc
1441 caccatgacc ctgcggccgc gactcgctg tcttttcctc gcctgtgtcc tgcggccctt
1501 gctgctgggg ggtgagtttt tgagtccaac ctcccgtgc tcctctgtc ccgggttctg
1561 t

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(2) INFORMATION FOR SEQ ID NO:2600:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 5101 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2600

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1 agcttcatcc tggagtcaac agattgggtt tgaatcctgg ctctgtccct ttctagctgt
61 gtgtttggtt gttactccac ctctctgagc cttatttct tcatcagtaa aagtaatat
121 cacctcctag ggttgttggg agggagaata agaacttcta aagtaccoga acctagcaac
181 taggacacta tatttgcagg caagatgaag aggggtgggg aagtaatagg aaacagccca
241 aatcgagagc cataatagtc tctctttact tagtgccagt gcaggcctgt gattctgttc
301 ttaaaaacgt ctggggcaag ctgcaggaaa gacccgagat agcttatgtt ctaccataag
361 ccttaaggga ggaggactcc aggcagggag acttaccatg gcacctctaa gagaaagcct
421 actgaccaga gagaggctcag tcatgtactc ccgtagcttc ttagaatttc tgatctgact
481 cgctgcctct agagtgttgc aggtggaat tggaaggcta tagaggaatt cggcagcata
541 cagtgggtca cgtctgtaat ccaaaatcca agcattttgg aaggccaaag taggaggatc
601 acttaagccc aggagtttaa gaccagccta ggcaaccgag tgagatccat ctccactaaa
661 aaattttaaa atttgccagg tatggtggtg tgcacctgta gcccagcta ctcaggagag
721 tcagagaatc ggcgcacccc ggagttcgag gttgcagtga gccatgatca cgccactgta
781 ctccagcctg ggtgacagag aagaccactt gtctcaaaaa acataaataa ataaataaat
841 aaataggccg tgcgcagcgg ctccagactg taattccaac attttagaag gcggaggcag
901 cggatcacct gaggtcagga ttcgggacc agcctgacca acgtggtgaa accccaactc
961 tactaaaaat acataaatta ggcggggcgt ggtggtggcc gcctgtaatc ccagctactc
1021 ggtaggctgc agcaggagaa tggtttgaa cggggaggca gaggttgagc tgagccaaaa
1081 tcccctcact gcattccagc ctgagactaa aaaaagagg cgatttccca catcgttgga
1141 aattttgagc gttaaaactc tggatgcctt tttcagttct aatattccag atctccttgg
1201 tggataaaca cttcatttcc cttctcttga gcagagctcc tgagccctgg cccgctggaa
1261 cctgtcactt ctaaaaaagt ccgaggtccg gactgtctct cccggagcct tgaggctgat
1321 gagacggagc gagagagggg ccgggggcaa tggagtctac tcgcggggccc agggagcgcg
1381 cagaggggccc cgggaccgac cgcaagaata acttccttcc tcttccgcta acttcccggc
1441 agggctacgc tcagggtggg ggcccagagg gctggggcgt cggcttcccc ctggggatcc
1501 cccgcttcag agaagccaag cgttagcgca gccaaagccg gaggcagcga agctccggcc
1561 cggggtggcg ctgggtcagg gtaccttctc ggcgttcccc tggccggccg aactcgcgcc

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1621 tgggtgctctg tcaccccgct ccccgccctg agtgagcctg tccccctctca ggggcgcgcc
1681 cgagtcgctc cgggttggtc gccaggtcca gagttaaact ttcagccaat gaaaaagggc
1741 gcgagggctg acgcacggaa acgtcatggg aattccccc tccggggggc cgagaagggg
1801 ctttcccgcc cctgagccct gctggcaggc gaggtgtcgc gaccgggtccc aggtgggtcg
1861 ggcgcggaga gaagccgcaa ccagagccgc cgccacggtg agtggctgga ttcagacccc
1921 tgggtggccg ggacaagaga aaagaggag gagggccttt agcggacagc gcctggggct
1981 ggagagcagc agctgcacac agccggaaag ggcgcgcagg cgacgacac cggtccacg
2041 tcgacaccgt tgtacaaaga tacgcggacc cgtacgtaca cctgtacctg tgctggcgca
2101 cacacggcag cgtccgtgca gtcgactcg cacacacatg cacacggaga cgtgccacc
2161 ggtgcactgg tgccctgcacc cacacccttc acgcacaaac tcaagatacg ctaccccgctg
2221 tctgtacatc aagacaggcg ctgacacaca cccacactga gaagctcggg attcacctat
2281 ctacacacat gctcgcttgc acactcatgt tgacgccatg gacacacaac atgcaaccaa
2341 gcactacagc gaaacacacac ttgtggagct gtgatggaga cactctcttg tattaggtgg
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2581 caggaaagag ccccgccctac aggtctgttc aaggggaggc cgtccgacag caggaatgtc
2641 ccccaaaaag ccccggggtt ttatcagccg tggcctccct cctggcagaa aatcccaagg
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2761 cccggccgtg aaagaccctc ctgttccctg ccctggaggg aggagggggc ttaaccacc
2821 ggggcttccc ggattctcct agacctctgc ccgctgaaaa gcagcgggac gccgtagact
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2941 ccgccccctc cggccccgcc tccccttggg attttcggga ctttcctaag ctgctctaac
3001 tttcctgccc cttccccgcc aagcccaact ccggtatctg ctctccaccg gatctcacc
3061 gccacaccg gacaggcggc tggaggaggt cggaccctcc cccaaatctg ggccccatt
3121 ctcccggcca ccccattta gatctgacct cctccccac gccactcctc ccaacttag
3181 gcgggcgtct aaaattctgg gaagcagaac ctggccggag ccactagaca gagcgggcc
3241 tagcccagag acatggagag ttgctacaac ccagttagtc atgccgctg cccctgacc
3301 ggcgggctag cccctcgtgt ctgtccacct gtctgcccga gccccctact gctgccttac
3361 acctgtatgc ctgcagatg ctctcagcct gccagtctgt ccatctgtct gcaactctgc
3421 ctccaaaagg agctttctct tgggtctgag gaggagggg gagtgaccac tgaagacttg
3481 gaagatggga ggtggggcta gtgtggggg tgctgagagt cggatggcac cccagctcg
3541 tctccaaacc aggtctgga tggattatt gaatatgatg atttcaaatt gaactcctc
3601 attgtggaac ccaaggagcc agccccagaa acaggtcagc aagttcacta acctccccta
3661 gtctaaagcg ggggagggag agcatgtgcc ctctctctgg gggaggggtc tgggagatcg
3721 tgtgctcagc aaggtctctc tgtccccagc tgatggcccc tacctgggtg tctggaaca
3781 gcctaagcag gttgagttag caaaagggag ggtatgggaa tggcttcagc tttggggaca
3841 aatggggtag ttagctggc tggcatggag gagcattgcc gaagaggccc acaggggatt
3901 ggtatggcac tgtgctgat cagagtgtct tagttttggt tcagggtcat taccagcac
3961 tcgggtcact gctggcctgg gtggtcttcc ctgatcaca tgctactatg cccctgacct
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4081 tgccctccagt gagaagggcc gaaagacctc tcccactgtc aaggtgakcc aggatggtgc
4141 tggmgggtgg gctaagtga cagcatgccc aaggccctga cgtgacagtc ccttgccctc
4201 cctagatctg taactacgag ggaccagcca agatcgaggt ggacctggta acacacagtg
4261 acccacctcg tgctcatgcc cacagtctgg tgggcaagca atgctcggag ctggggatct
4321 gcgcgcttcc tgtggggccc aaggacatga ctgcccagta ggtgcccttc ttacgccttg
4381 gccccactg gtatgccskt cwtgccagtc ccaggcccca gccacctcca tatgatgta
4441 gcatctgacc aaggggaaan gatgtagggt ggccccaac ccaagggcct aagtagaac
4501 tccaatggct tccttgagga agtaaggctg agctgagcct ggcaatggga aaggtgcctg
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4921 ggctgcgctt ctctgccttc cttagagcca gtgatggctc cttctccctg cccctgaagc
4981 cagtcacctc ccagcccatc catgatagca gtgagtatcc tgattgcctg ggggtgccagg
5041 cctggtsgsa gaggtggcat gaggggtgac ctcaagctgt gcagtcacac aagaccagg
5101 ttccagaacc tgcstgcca catatgagct gagtgatcct gagcaagtca tttccccccc

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(2) INFORMATION FOR SEQ ID NO:2601:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3601 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2601

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1 ggccaccgga ggcggccggc gacgatcgct gacagcttcc cctgcccttc ccgtcggctc
61 ggccgccagc cgccgcagcc ctcggcctgc acgcagccac cggccccgct cccggagccc

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121 agcgccgccc agggccgcgc cgcccggcca gtaaggcggc gccgcccgcg gccaccgcgg
181 gccctgccgt tccctccgcc gcgctgcgcc atggcgcggc gctgactggc ctggcccggc
241 cccgcccgcg tcccgctcgc cccgaccgcg actcggggcc gcccgggctc cggcctgccc
301 ccgcctcttc ctctccagc cggcaggccc cgccgcttag gaggagagc ccaccgcgc
361 caggagggcg aacgcggact cgccaccgcg cttcagaatg gcagaagatg atccatattt
421 gggaaggcct gaacaaatgt ttcatttgga tcttctttg actcatataa tatttaatcc
481 agaagtattt caaccacaga tggcactgcc aacagatggc ccataccttc aaatattaga
541 gcaacctaaa cagagaggat ttcgtttccg ttatgtatgt gaaggcccat cccatggtgg
601 actacctggt gcctctagtg aaaagaacaa gaagtcttac cctcagggtc aaatctgcaa
661 ctatgtggga ccagcaaagg ttattgttca gttggtcaca aatggaaaaa atatccacct
721 gcatgcccac agcctgggtg gaaaacactg tgaggatggg atctgcactg taactgctgg
781 acccaaggac atggtggctg gcttcgcaaa cctgggtata cttcatgtga caaagaaaaa
841 agtatttgaa acactggaag cacgaatgac agaggcgtgt ataaggggg ataactcctg
901 actcttggtg caccctgacc ttgcttattt gcaagcagaa gylggaggg accggcagct
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1021 cctcagcgtg gtgcggtcga tgtttacagc ttttcttccg gatagcactg gcagcttcac
1081 aaggcgctg gaaccgctgg tatcagacgc catctatgac agtaaagccc ccaatgcac
1141 caacttgaaa attgtaagaa tggacaggac agctggatgt gtgactggag gggaggaat
1201 ttatcttctt tgtgacaaag ttcagaaaga tgacatccag attcgatttt atgaagagga
1261 agaaaaatgt ggagtctggg aaggatttgg agatttttcc cccacagatg ttcatagaca
1321 atttgccatt gtctcaaaa ctccaaaagta taaagatatt aatattacaa aaccagctc
1381 tgtgtttgtc cagcttcgga ggaaatctga cttggaaact agtgaaccaa aacctttcct
1441 ctactatcct gaaatcaaag ataaagaaga agtgacagag aaacgtcaga agctcatgcc
1501 caatttttcc gatagtttcg gcggtggtag tgggtccgga gctggaggcg gaggcatgtt
1561 tggtagtggc ggtggaggag ggggcaactg aagtacaggt ccagggtata gcttccaca
1621 ctatggattt cctacttatg gtgggattac tttccatcct ggaactacta aatctaagc
1681 tgggatgaag catggaacca tggacatgga atctaaaaag gacctgaag gttgtgacaa
1741 aagtgtgac aaaaacactg taaacctctt tgggaaagtt attgaaacca cagagcaaga
1801 tcaggagccc agcgaggcca ccgttgggaa tggtagggtc actctaactg atgcaacagg
1861 acaaaaagaa gagagtgtg gagttcagga taacctctt ctagagaagg ctatgcagct
1921 tgcaaaagg catgccaatg ccttttcga ctacgcggtg acaggagacg tgaagatgct
1981 gctggccgct cagcgccatc tcaactgtgt gcaggatgag aatggggaca gtgtcttaca
2041 cttagcaatc atccaccttc attctcaact tgtgagggat ctactagaag tcacatctgg
2101 tttgatttct gatgacatta tcaacatgga aaatgatctg taccagacgc cttgtgacct
2161 ggcagtgatc actaagcagg aagatgtggt ggaggatttg ctgagggctg gggccgacct
2221 gagccttctg gaccgcttgg gtaactctgt tttgcacctg gctgcaaaag aaggacatga
2281 taaagtcttc agtatcttac tcaagcacia aaaggcagca ctacttcttg accaccocaa
2341 cggggacggt ctgaatgcca ttcacttagc catgatgagc aatagcctgc catgtttgct
2401 gctgctggtg gccgctgggg ctgacgtcaa tgcctcaggag cagaagtcgg ggcgcacagc
2461 actgcacctg gctgtggagc acgacaacat ctcatggga ggctgcctgc tccgtggagg
2521 tgatgcccat gtggacagta ctacctacga tggaaaccaca cccctgcata tagcagctgg
2581 gagagggtcc accaggctgg cagctcttct caaagcagca ggagcagatc ccctggtgga
2641 gaactttgag cctctctatg acctggatga ctcttgggaa aatgcaggag aggatgaagg
2701 agttgtgctt ggaaccacgc ctctagatat ggccaccagc tggcagggtat ttgacatatt
2761 aaatgggaaa ccatatgagc cagagtttac atctgatgat ttactagcac aaggagacat
2821 gaaacagctg gctgaagatg tgaagctgca gctgtataag ttactagaaa ttcctgatcc
2881 agacaaaaac tgggctactc tggcgagaa attaggtctg gggatactta ataatgcctt
2941 cgggtgagt cctgctcctt ccaaaaact tatggacaac tatgaggtct ctgggggtac
3001 agtcagagag ctggtggagg ccctgagaca aatgggctac accgaagcaa ttgaagtgat
3061 ccaggcagcc tccagcccag tgaagaccac ctctcaggcc cactcgtgct ctctctcgcc
3121 tgccctccaca aggcagcaaa tagacgagct ccgagacagt gacagtgtct gcgacacggg
3181 cgtggagaca tccctccgca aactcagctt taccgagtct ctgaccagtg gtgcctcact
3241 gctaactctc acaaaaatgc cccatgatta tgggcaggaa ggacctctag aaggcaaaat
3301 ttacgctgct gacaatttcc cacaccgtgt aaaccaagc cctaaaattc cactgcgttg
3361 tccacaagac agaagctgaa gtgcaccaa aggtgctcag agagccggcc cgcctgaatc
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3481 tttagtttgg ttcacttaca gatagtatct agcaatcaca aactggctg agcggatgca
3541 tctggggatg aggttgctta ctaagctttg ccagctgctg ctggatcaca gctgctttct
3601 gttgtcattg ctgtgtccc tctgc

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(2) INFORMATION FOR SEQ ID NO:2602:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1621 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2602

```

1 actttcctgc cccttcccc gccaagcca actccggatc tcgctctcca ccggatctca
61 cccgccacac ccggacaggc ggctggagga ggcggcgctc taaaattctg ggaagcagaa

```

121 cctggccgga gccactagac agagccgggc ctagcccaga gacatggaga gttgctacaa
181 cccaggtctg gatggtatta ttgaatatga tgatttcaaa ttgaactcct ccattgtgga
241 acccaaggag ccagcccag aaacagctga tggcccctac ctggtgatcg tggaaacagcc
301 taagcagaga ggcttccgat ttcgatatgg ctgtgaaggc ccctcccatg gagactgcc
361 cgggtgctcc agtgagaagg gccgaaagac ctatccact gtcaagatct gtaactacga
421 gggaccagcc aagatcgagg tggacctggg aacacacagt gaccacctc gtgctcatgc
481 ccacagtctg gtgggcaagc aatgctcggg gctggggatc tgcgccgtt ctgtggggcc
541 caaggacatg actgccaat ttaacaacct ggggtgctct catgtgacta agaagaacat
601 gatggggact atgatacaaa aacttcagag gcagcggctc cgctctaggc cccaggccct
661 tacggaggcc gagcagcggg agctggagca agaggccaaa gaactgaaga aggtgatgga
721 tctgagtata gtgcggctgc gcttctctgc cttccttaga gccagtgatg gctccttctc
781 cctgcccctg aagccagtca cctcccagcc catccatgat agcaaatctc cgggggcac
841 aaacctgaag atttctcgaa tggacaagac agcaggctct gtgcggggtg gagatgaagt
901 ttatctgctt tgtgacaagg tgcagaaaga tgacattgag gttcggttct atgaggatga
961 tgagaatgga tggcaggcct ttggggactt ctctcccaca gatgtgcata aacagtatgc
1021 catttgtgtc cggacacccc cctatcacaa gatgaagatt gagcggcctg taacagtgtt
1081 tctgcaactg aaacgcaagc gaggagggga cgtgtctgat tccaaacagt tcacctatta
1141 ccctctggtg gaagacaagg aagaggtgca gcggaagcgg aggaaggcct tgcacacctt
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1261 ctacggagga gctggaggag gtgagggggt actgatggag ggaggggtaa aggtaaagga
1321 agctgtggag gaaaaaatc tgggggaggc cgggctggc ttgcacgcct gtaatccagc
1381 ctttgggagg ccaaggcagg cagttacctg agatcaggag ttcaagacca gcttggccaa
1441 cagcgtgaaa cctcgtctct actaaaaata caaacattag ctgggcatgg tggcaggcgc
1501 ctgtaatccc agctactcgg gaggtgagg caggagaatc gcttgaacct tgggagacaa
1561 gaggttgag taagctgaga tcacaccact gcactccagg ctgggcaata agagcgaaac
1621 tccgtctcaa aaaaaaaaaa aaaaaaaaaa

(2) INFORMATION FOR SEQ ID NO:2603:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3061 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2603

1 cacggtgagt ggctggattc agaccctggt gtggccggga caagagaaaa gagggaggag
61 ggccttttagc ggacagcgcc tggggctgga gagcagcagc tgacacacagc cggaaagggc
121 gcgcaggcga cgacactcgg atccacgtcg acaccgttgt acaaagatac gcggaccgcg
181 gggcgtctaa aattctggga agcagaacct ggccggagcc actagacaga gccgggccta
241 gccagagac atggagagtt gctacaacct aggtctggat ggtattattg aatatgatga
301 tttcaaattg aactcctcca ttgtggaacc caaggagcca gccccagaaa cagctgatgg
361 cccctacctg gtgatcgtgg aacagcctaa gcagagaggc ttccgatttc gatatggctg
421 tgaaggcccc tcccatggag gactgcccg tgcctccagt gagaagggccc gaaagacct
481 tcccactgtc aagatctgta actacgaggg accagccaag atcgagggtg acctggtaac
541 acacagtac ccacctcgtg ctcatgccc cagtctggtg ggcaagcaat gctcggagct
601 ggggatctgc gccgtttctg tggggcccaa ggacatgact gcccaattta acaacctggg
661 tgtcctcat gtgactaagg agaacatgat ggggactatg atacaaaaac ttcagaggca
721 gcggctccgc tctaggcccc agggccttac ggaggccgag cagcgggagc tggagcaaga
781 ggccaaagaa ctgaagaagg tgatggatct gagtatagt cggtcgctct tctctgcctt
841 ccttagagcc agtgatggct ccttctccct gccctgaag ccagtcatct cccagcccat
901 ccatgacagc aaatctccgg gggcatcaaa cctgaagatt tctcgaatgg acaagacagc
961 aggtctctgt cggggtggag atgaagttta tctgctttgt gacaagggtg agaaagatga
1021 cattgaggtt cggttctatg aggatgatga gaatggatgg caggcctttg gggacttctc
1081 tcccacagat gtgcataaac agtatgccat tgtgttccgg acacccccct atcacaaagt
1141 gaagattgag cggcctgtaa cagtgtttct gcaactgaaa cgcaagcgag gaggggacgt
1201 gtctgattcc aaacagttca cctattacc tctggtggaa gacaaggaag aggtgcagcg
1261 gaagcggagg aaggccttgc ccaccttctc ccagcccttc ggggggtggt cccacatggg
1321 tggaggctct gggggtgcag ccgggggcta cggaggagct ggaggagggt gcagcctcgg
1381 tttcttcccc tctccctgg cctacagccc ctaccagtc ggcgggggccc ccatgggctg
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1561 ggagatgctg cagcgagctc gagagtacaa cgcgcgcctg ttcggcctgg cgcagcgag
1621 gcggcgagcc ctactcgact acggcgctac cgcggaccgg cgcgcgctgc tggcgggaca
1681 gcgccacctg ctgacggcgc aggacgagaa cggagacaca cactgcacc tagccatcat
1741 ccacgggcag accagtgtca ttgagcagat agtctatgtc atccaccacg cccaggacct
1801 cggcgttgtc aacctcacca accacctgca ccagacgcc ctgcacctg cggatgacac
1861 ggggcagacg agtgtgggtg gctttctgct gcgggtaggt gcagaccag ctctgctgga
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1981 gctgcgtgca ctgcttcaga gtggagctcc tgctgtgccc cagctgttgc atatgctga
2041 ctttgaggga ctgtatccag tacacctggc ggtccgagcc cgaagccctg agtgctcgtga

2101 tctgctggtg gacagtgggg ctgaagtggg gccacagag cggcaggggg gacgaacagc
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2221 ccggggccaac gtgaacgctc gcacctttgc gggaaacaca cccctgcacc tggcagctgg
2281 actgggggtac ccgacctca cccgcctcct tctgaaggct ggtgctgaca tccatgctga
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2461 ttgcagcacc aaggtgaaga ccttgctgct aaatgctgct cagaacacca tggagccacc
2521 cctgaccccg cccagcccag cagggccggg actgtcactt ggtgatacag ctctgcagaa
2581 cctggagcag ctgctagacg ggcagaaagc ccagggcagc tgggcagagc tggcagagcg
2641 tctggggctg cgcagcctgg tagacacgta ccgacagaca acctcaccca gtggcagcct
2701 cctgcgagc taccagctgg ctggcgggga cctggcaggt ctactggagg cctgtctga
2761 catgggccta gaggaggag tgaggctgct gagggttcca gaaacccgag acaagctgcc
2821 cagcacaaca gaggtgaagg aagacagtgc gtacgggagc cagtcaagg agcagaagcg
2881 aqagaagctg gggccacccc ctgagccacc aggggggctc tggcagggc accccagcc
2941 tcaggtgcac tgacctgctg cctgccccca gcccccttc cggacccct gtacagcgtc
3001 cccacctatt tcaaatctta ttaacaccc cacaccacc cctcagttgg gacaaataaa
3061 ggattctcat gggaagggga ggaccctcc ttcccaactt aaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2604:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 13384 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2604

1 agcttcatcc tggagtcaac agattgggtt tgaatcctgg ctctgtccct ttctagctgt
61 gtgtttggtt gttactccac ctctctgagc ctttaattct tcatcagtaa aagtaattt
121 caccctctag gttgttggg agggagaata agaacttcta aagtaccga acctagcaac
181 taggacacta tatttcagc caagatgaag aggggtggg aagtaattag aaacagccca
241 aatcgagagc cataatagtc tctctttact tagtgccagt gcaggcctgt gattctgttc
301 ttaaaaacgt ctggggcaag ctgcaggaaa gacccgagat agcttatgtt ctaccataag
361 ccttaaggga ggaggactcc aggcaggag acttaccatg gcacctctaa gagaaagcct
421 actgaccaga gagaggtcag tcatgtactc ccgtagcttc ttagaatttc tgatctgact
481 cgctgcctct agagtgttc aggtggaat tggagggcta tagaggaatt cggcagcata
541 cagtggctca cgtctgtaat ccaaatcca agcattttgg aaggccaaag taggaggatc
601 acttaagccc aggagttaa gaccagcta ggcaaccgag tgagatccat ctccactaaa
661 aaattttaaa atttgccagg tatggtggtg tgcacctgta gcccagcta ctcaggagag
721 tcagagaatc ggcgacccc ggagttcgag gttgcagtga gccatgatca cgccactgta
781 ctccagcctg ggtgacagag aagaccact gtctcaaaaa acataaataa ataaataaat
841 aaataggccg tgcgcagcgg ctacagactg taattccaac attttagaag gcggaggcag
901 cggatcacct gaggtcagga gttcgggacc agcctgacca acgtggtgaa accccaactc
961 tactaaaaat acataaatta gggtttgaa cccggaggca gaggttgag tgagccaaaa
1021 ggtaggctgc agcaggagaa tgggtttgaa cccggaggca gaggttgag tgagccaaaa
1081 tccctcact gcattccagc ctgagactaa aaaaaagagg cgatttccca catcggtgga
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1261 cctgtcactt ctaaaaaagt tgcaggtccg gactgtctct cccggagcct tgaggctgat
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1441 agggctacgc tcagggtggg ggcccagagg gctggggcgt cggcttcccc ctggggatcc
1501 cccgcttcag agaagccaag cgttagcgca gccaaagccg gaggcagcga agctccggcc
1561 cgggttgccg ctgggtcagg gtacctctc ggcggtcccc tggccggccg aactcgccgc
1621 tgggtgcctg tcaccccgct ccccgccctg agtgagcctg tccctctca gggcgccgc
1681 cgagtcgctc cgggttggtt gccaggtcca gagttaaact ttcagccaat gaaaaagggc
1741 cggagggtc acgcacggaa acgtcatggg aattcccccc tccggggggc cgagaagggg
1801 ctttccgggc cctgagccct gctggcaggc gaggtgtcgc gaccggtccc aggtgggtcg
1861 ggcgcggaga gaagccgcaa ccagagccgc cgccacgggt agtggtgga ttcagacccc
1921 tgggtggccg ggacaagaga aaagaggag gagggcctt agcggacagc gcctggggct
1981 ggagagcagc agctgcacac agccggaag ggcgcgagc gcagacact cggatccacg
2041 tcgacaccgt tgcacaaaga tacgcggacc cgtacgtaca cctgtacctg tgctggcgca
2101 cacacggcag cgtccgtgca gtcgactcg cacacacatg cacacggaga cgtgccacc
2161 ggtgactgg tgctgcacc cacaccttc acgcacaaac tcaagatac ctcacccgtg
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2341 gactacagc cgaacacac ttgtggagct gtgatggaga cacactctt tattaggtgg
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2701 ttgctccaga ccgggggagg ggagcgggag gcggacttgg cccagactg ccagcctct
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3121 ctcccgccca cccccattta gatctgaccc cctccccac gccactcctc ccaactttag
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3481 gaagatggga ggtggggcta gtgtgggggg tgctgagagt cggatgccac cccagctctg
3541 tctccaaacc agggctctga tggattattt gaatatgatg atttcaaatt gaactcctcc
3601 attgtggaac ccaaggagcc agccccagaa acaggctcagc aagttcacta acctccccta
3661 gtctaaagcg ggggagggag agcatgtgcc ctctctctgg gggagggggtc tgggagatcg
3721 tgtgtctcagc aaggctctctc tgtccccagc tgatggcccc tacctgggtga tctgtgaaca
3781 gcctaagcag gttgagttag caaaagggag ggatgtggaa tggcttcagc tttggggaca
3841 aatggggtag tgtagctggc tggcatggag gaggattgcc gaagaggccc acaggggatt
3901 ggatggctac tgtgtctgat cagagtgtct tagttttggg tcagggttac taccagcgac
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5101 tttcagaacc tgcstgcca catatgagct gagtgtacct gagcaagtca tttccccccc
1 ggccaccgga gcggcccgcc gacgatcgct gacagcttcc cctgcccctc ccgtcggtcg
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121 agcgccgccc aggcgcagc cgcccgccc gtaaggcgcc gcccccgcg gccaccgcg
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301 ccgctcttc cttctccagc cggcaggccc cgccgcttag gaggagagc ccaccgcgc
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481 agaagtattt caaccacaga tggcactgcc aacagatggc ccataccttc aaatattaga
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601 actacctggt gcctctagt aaaagaacaa gaagtcttac cctcaggtca aaatctgcaa
661 ctatgtggga ccagcaaagg ttattgttca gttggtcaca aatggaaaaa atatccacct
721 gcatgccac agcctggtg gaaaacactg tgaggatggg atctgcactg taactgctgg
781 acccaaggac atggtggtcg gcttcgcaaa cctgggtata cttcatgtga caaagaaaaa
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1201 ttatcttctt tgtgacaaag ttcagaaaga tgacatccag attcgatttt atgaagagga
1261 agaaaaatgt ggagtctggg aaggatttgg agatttttcc cccacagatg ttcatagaca
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1381 tgtgtttgtc cagcttcgga ggaaatctga cttggaaact agtgaaccaa aaccttctct
1441 ctactatcct gaaatcaaag ataaagaaga agtgcagagg aaacgtcaga agctcatgcc
1501 caatttttctg gatagtttctg gcggtggtag tgggtccgga gctggaggcg gaggcatgtt

1561 tggtagtgge ggtggaggag ggggcactgg aagtacaggt ccagggtata gcttccca
 1621 ctatggattt cctacttatg gtgggattac tttccatcct ggaactacta aatctaattg
 1681 tgggatgaag catggaacca tggacactga atctaaaaag gaccctgaag gttgtgacaa
 1741 aagtgatgac aaaaacactg taaacctctt tgggaaagt attgaaacca cagagcaaga
 1801 tcaggagccc agcagaggcca ccgttgggaa tggtagggtc actctaactg atgcaacagg
 1861 aacaaaagaa gagagtgtcg gagttcagga taacctcttt ctagagaagg ctatgcagct
 1921 tggcaagagg catgccaatg cccttttcga ctacgcggtg acaggagacg tgaagatgct
 1981 gctggccgtc cagcgccatc tcaactgtgt gcaggatgag aatggggaca gtgtcttaca
 2041 cttagcaatc atccaccttc attctcaact tgtgagggat ctactagaag tcacatctgg
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 2221 gagccttctg gaccgcttgg gtaactctgt tttgcaccta gctgccaagg aaggacatga
 2281 taaagttctc agtatcttac tcaagcaca aaaggcagca ctacttctg accaccccaa
 2341 cgggagcggg ctgaatgcca ttcctctagc catgatgagc aatagccttg catgtttgct
 2401 gctgctggtg gccgctgggg ctgacgtcaa tgctcaggag cagaagtccg ggcgcacagc
 2461 actgcacctg gctgtggagc acgacaacat ctcatggca ggctgcctgc tcttgagggg
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 2581 gagagggtcc accaggctgg cagctcttct caaagcagca ggagcagatc ccttgggtga
 2641 gaactttgag cctctctatg acctggatga ctcttgggaa aatgcaggag aggatgaagg
 2701 agttgtgctt ggaaccacgc ctctagatat ggccaccagc tggcaggtat ttgacatatt
 2761 aaatgggaaa ccatatgagc cagagtctac atctgatgat ttactagcac aaggagacat
 2821 gaaacagctg gctgaagatg tgaagctgca gctgtataag ttactagaaa ttcctgatcc
 2881 agacaaaaac tgggctactc tggcgacagaa attaggtctg gggataacta ataatgcctt
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 3001 agtcagagag ctggtggagg ccctgagaca aatgggctac accgaagcaa ttgaagtgat
 3061 ccaggcagcc tccagcccag tgaagaccac ctctcaggcc cactcgtctc ctctctcgcc
 3121 tgcctccaca aggcagcaaa tagacagact ccgagacagt gacagtgtct cgcacacggg
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 3481 tttagtttgg ttcacttaca gtagtattct agcaatcaca acactggctg agcgatgca
 3541 tctggggatg aggttgctta ctaagctttg ccagctgctg ctggatcaca gctgctttct
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 1 actttcctgc cccttccccg gccaaagccca actccggatc tggctctcca ccgatctca
 61 cccgccacac ccggacaggc ggctggaggga ggcggggctc taaaattctg ggaagcagaa
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 181 cccaggtctg gatggtatta ttgaatatga tgatttcaaa ttgaactctt ccattgtgga
 241 acccaaggag ccagcccag aaacagctga tggccctac ctggtgatcg ttgaacagcc
 301 taagcagaga ggcttccgat ttcgatatgg ctgtgaaggc ccctcccatg gaggactgcc
 361 cgggtgcctcc agtgagaagg gccgaaagac ctatccctact gtcaagatct gtaactacga
 421 gggaccagcc aagatcgagg tggacctggt aacacacagt gaccacctc gtgctcatgc
 481 ccacagtctg gtgggcaagc aatgctcgga gctggggatc tgcgcgctt ctgtggggcc
 541 caaggacatg actgcccatt ttaacaacct ggggtgctct catgtgacta agaagaacat
 601 gatggggact atgatacaaa aacttcagag gcagcggctc cgctctaggc cccagggcct
 661 tacggaggcc gagcagcggg agctggagca agaggccaaa gaactgaaag aggtgatgga
 721 tctgagtata gtgcggctgc gcttctctgc ctcccttaga gccagtgatg gctcctctc
 781 cctgcccctg aagccagtca cctccagcc catccatgat agcaaactc cgggggcatc
 841 aaacctgaag atttctcgaa tggacaagac agcaggctct gtgcggggtg gagatgaagt
 901 ttatctgctt tgtgacaagg tgcagaaaga tgacattgag gttcggttct atgaggatga
 961 tgagaatgga tggcaggcct ttggggactt ctctcccaca gatgtgcata aacagtatgc
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 1081 tctgcaactg aaacgcaagc gaggagggga cgtgtctgat tccaaacagt tcacctatta
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 1381 ctttgggagg ccaaggcagg cagttacctg agatcaggag ttcaagacca gcttggccaa
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 1501 ctgtaatccc agctactcgg gaggtgagg caggagaatc gcttgaaccc tgggagacaa
 1561 gaggttgag taagctgaga tcacaccact gcactccagg ctgggcaata agagcgaaac
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 1 cacggtgagt ggctggattc agacccttgg gtggccggga caagagaaaa gagggaggag
 61 ggcctttagc ggacagcgcc tggggctgga gacgagcagc tgcacacagc cggaaagggc
 121 gcgcaggcga cgacactcgg atccacgtcg acaccgttgt acaaagatac gcggacccgc
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 241 gccagagac atggagagtt gctacaaccc aggtctggat ggtattattg aatatgatga

301 tttcaaattg aactcctcsa ttgtggaacc caaggagcca gccccagaaa cagctgatgg
361 cccctacctg gtgatcgtgg aacagcctaa gcagagaggc ttccgatttc gatatggctg
421 tgaaggcccc tcccatggag gactgcccgg tgcctccagt gagaagggcc gaaagaccta
481 tcccactgtc aagatctgta actacgaggg accagccaag atcgaggtgg acctggtaac
541 acacagtgtc ccacctcgtg ctcatgcccc cagtctggtg ggcaagcaat gctcggagct
601 ggggatctgc gccgtttctg tggggcccaa ggacatgact gcccatttta acaacctggg
661 tgtcctgcat gtgactaagg agaactgat ggggactatg atacaaaac ttcagaggca
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901 ccatgacagc aaatctccgg ggcatcaaaa cctgaagatt tctcgaatgg acaagacagc
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1021 cattgaggtt cggttctatg aggatgatga gaatggatgg caggcctttg gggacttctc
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1141 gaagattgag cggcctgtaa cagtgtttct gcaactgaaa cgcaagcgag gaggggagct
1201 gtctgattcc aaacagttca cctattaccc tctggtggaa gacaaggaag aggtgcagcg
1261 gaagcggagg aaggccttgc ccaccttctc ccagcccttc gggggtggct cccacatggg
1321 tggaggctct gggggtgcag ccgggggcta cggaggagct ggaggaggtg gcagcctcgg
1381 ttcttccccc tctccctgg cctacagccc ctaccagtc ggcgcgggcc ccatgggctg
1441 ctacccgga ggccggggcg ggcgcagat ggcgcccacg gtgcccagca gggactccgg
1501 ggaggaagcc gcggagccga gcgccccctc caggaccccc cagtgcgacg cgcaggcccc
1561 ggagatgctg cagcgagctc gagagtacaa cgcgcgctg ttcggcctgg cgcagcgag
1621 cgcccagacc ctactcgact acggcgctac cgcggaccgg cgcgcgctg tggcgggaca
1681 gcgccacctg ctgacggcgc aggacgagaa cggagacaca ccactgeacc tagccatcat
1741 ccacgggcag accagtgtca ttgagcagat agtctatgtc atccaccacg cccaggacct
1801 cggcgttgtc aacctcacca accactgtca ccagacgccc ctgcacctgg cgtgatcac
1861 ggggcagacg agtggtgtga gctttctgct gcgggtaggt gcagaccag ctctgtgga
1921 tcggcatgga gactcagcca tgcactctggc gctgcgggca ggcgctgggtg ctctgagct
1981 gctgcgtgca ctgcttcaga gtggagctcc tgcgtgccc cagctgttgc atatgctga
2041 ctttgaggga ctgtatccag tacacctggc ggtccgagcc cgaagccctg agtgcttga
2101 tctgctggtg gacagtggg ctgaagtggg ggccacagag cggcaggggg gacgaacagc
2161 ctgcatcta gccacagaga tggaggagct ggggttggc acccatctgg tcaccaagct
2221 ccgggccaac gtgaacgctc gcaccttgc gggaaacaca cccctgcacc tggcagctgg
2281 actgggttac ccgacctca ccgcctcct tctgaaggct ggtgctgaca tccatgctga
2341 aaacgaggag cccctgtgcc cactgccttc accccctacc tctgatagcg actcggactc
2401 tgaagggcct gagaaggaca ccgaagcag cttccggggc cacacgcctc ttgacctcac
2461 ttgcagcacc aaggtgaaga cttgctgct aaatgctgct cagaacacca tggagccacc
2521 cctgaccccg cccagcccag cagggccggg actgtcactt ggtgatacag ctctgcagaa
2581 cttggagcag ctgctagacg ggccagaagc ccagggcagc tgggcagagc tggcagagcg
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2701 cctgcgcagc tacgagctgg ctggcgggga cctggcaggt ctactggagg cctgtctga
2761 catgggccta gaggaggag tgaggctgct gagggtcca gaaacccgag acaagctgcc
2821 cagcacaaca gaggtgaagg aagacagtgc gtacgggagc cagtcagtgg agcagaaggc
2881 agagaagctg ggcccacccc ctgagccacc aggagggctc tgccacgggc acccccagcc
2941 tcaggtgcac tgacctgctg cctgccccca gcccccttc cggaccccc ctacagcgtc
3001 ccacacctatt tcaaatctta tttaacacc caccaccacc cctcagttgg gacaaataaa
3061 ggattctcat gggaagggga ggaccctcc ttccaactt aaaaaaaaaaaa aaa

(2) INFORMATION FOR SEQ ID NO:2605:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2161 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2605

1 atgacagcaa aagattcttc aaaggaaactt actgcttctg aacctgaggt ttgcataaag
61 actttcaagg agcaaatgca tttagaactt gagcttccga gattaccagg aaacagacct
121 acatctccta aaatttctcc acgcagttca ccaaggaaact caccatgctt tttcagaaag
181 ttactggtga ataaaaagcat tcggcagcgt cgtcgttca ctgtggctca tacatgctt
241 gatgtgaaa atggcccttc cccaggtcgg agtccactgg atccccaggc cagctcttcc
301 gctgggctgg tacttcacgc cacttttctt gggcacagcc agcgagaga gtcatttctc
361 tacagatcag acagcgacta tgacttgta ccaaaggcga tgcgagaaa ctcttctctt
421 ccaagcgagc aacacggcga tgacttgatt gtaactcctt ttgcccaggt ccttgccagc
481 ttgcgaagtg tgagaaacaa cttcactata ctgacaaacc ttcatggtac atctaacaag
541 aggtccccag ctgctagtca gcctcctgtc tccagagtca acccacaaga agaattctat
601 caaaaattag caatggaaac gctggaggaa ttagactggt gtttagacca gctagagacc
661 atacagacct accggtctgt cagtgaatg gcttctaaca agttcaaaag aatgctgaac
721 cgggagctga cacacctctc agagatgagc cgatcagggg accaggtgtc tgaatacatt

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781 tcaaatactt tcttagacaa gcagaatgat gtggagatcc catctcctac ccagaaagac
841 agggagaaaa agaaaaagca gcagctcatg acccagataa gtggagttaa gaaattaatg
901 catagttcaa gcctaaacaa tacaagcatc tcacgctttg gagtcaacac tgaaaatgaa
961 gatcacctgg ccaaggagct ggaagacctg aacaaatggg gtcttaacat cttaaatgtg
1021 gctggatatt ctcacaatag acccctaaca tgcacatcatg atgctatatt ccaggaaaga
1081 gacctcctaa agacattcag aatctcatct gacacattta taacctacat gatgacttta
1141 gaagaccatt accattctga cgtggcatat cacaacagcc tgcacgtgc tgatgtagcc
1201 cagtcgaccc atgttctcct ttctacacca gcattagacg ctgtcttcac agatttggag
1261 atcctggctg ccatttttgc agctgccatc catgacgttg atcatcctgg agtctccaat
1321 cagtttctca tcaacacaaa ttcagaactt gctttgatgt ataatgatga atctgtgttg
1381 gaaaatcatc accttgctgt gggtttcaaa ctgctgcaag aagaacactg tgacatcttc
1441 atgaatctca ccaagaagca gcgtcagaca ctcaggaaga tggttattga catggtgtta
1501 gcaactgata tgtctaaaca tatgagcctg ctggcagacc tgaagacaat ggtagaacac
1561 aagaaagtta caagttcagg cgttctcttc ctgacaaact ataccgatcg catcaggttc
1621 cttcgcaaca tggtagactg tgcagacctg agcaacccca ccaagtcctt ggaattgtat
1681 cggcaatgga cagaccgcat catggaggaa tttttccagc agggagacaa agagcgggag
1741 aggggaatgg aaattagccc aatgtgtgat aaacacacag cttctgttga aaaatcccag
1801 gttggtttca tcgactacat tgtccatcca ttgtgggaga catgggcaga tttggtacag
1861 cctgatgctc aggacattct cgatacctta gaagataaca ggaactggta tcagagcatg
1921 atacctcaaa gtccctcacc accactggac gagcagaaca gggactgcca gggctctgatg
1981 gagaagtttc agtttgaact gactctcgat gaggaagatt ctgaaggacc tgagaaggag
2041 ggagagggac acagctatct cagcagcaca aagacgcttt gtgtgattga tccagaaaac
2101 agagattccc tgggagagac tgacatagac attgcaacag aagacaagtc cccctgtgat
2161 aca

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(2) INFORMATION FOR SEQ ID NO:2606:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 301 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2606

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1 tatcacaaca gcatgcacgc agccgatgtt acccagacag tccattgctt cttgctccgc
61 acagggatgg tgcactgcct gtcggagatt gagctcctgg ccatcatctt tgctgcagct
121 atccatgatt atgagcacac gggcactacc aacagcttcc acatccagac caagtcagaa
181 tgtgccatcg tgtacaatga tcgttcagtg ctggagaatc accacatcag ctctgttttc
241 cgattgatgc aggatgatga gatgaacatt ttcacaaacc tcaccaagga tgagtttgta
301 gaactccgag ccctggtcat tgagatggtg ttggtacag atatggca

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(2) INFORMATION FOR SEQ ID NO:2607:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2462 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2607

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1 atgacagcaa aagattcttc aaaggaactt actgcttctg aacctgaggt ttgcataaag
61 actttcaagg agcaaatgca tttagaactt gagcttccga gattaccagg aaacagacct
121 acatctccta aaatttctcc acgcagttca ccaaggaact caccatgctt ttccagaaag
181 ttactggtga ataaaagcat tcggcagcgt cgtcgttcca ctgtggctca tacatgcttt
241 gatgtggaaa atggcccttc cccaggctcg agtccactgg atccccaggc cagctcttcc
301 gctgggctgg tacttcacgc caccttctct gggcacagcc agcgcagaga gtcatttctc
361 tacagatcag acagcgacta tgacttgta ccaaaaggcga tgcgagaaa ctcttctctt
421 ccaagcgagc aacacggcga tgacttgatt gtaactcctt ttgcccaggc ccttgccagc
481 ttgcgaagtg tgagaaacaa cttactata ctgacaaacc ttcatggtac atctaacaag
541 aggtcccccag ctgtagtca gcctcctgtc tccagagtca acccacaaga agaattctat
601 caaaaattag caatggaaac gctggaggaa ttagactggt gttagacca gctagagacc
661 atacagacct accggtctgt cagtgaatg gcttctaaca agttcaaaag aatgctgaac
721 cgggagctga cacacctctc agagatgagc cgatcagggg accaggtgtc tgaatacatt
781 tcaaatactt tcttagacaa gcagaatgat gtggagatcc catctcctac ccagaaagac
841 agggagaaaa agaaaaagca gcagctcatg acccagataa gtggagttaa gaaattaatg
901 catagttcaa gcctaaacaa tacaagcatc tcacgctttg gagtcaacac tgaaaatgaa
961 gatcacctgg ccaaggagct ggaagacctg aacaaatggg gtcttaacat cttaaatgtg
1021 gctggatatt ctcacaatag acccctaaca tgcacatcatg atgctatatt ccaggaaaga
1081 gacctcctaa agacattcag aatctcatct gacacattta taacctacat gatgacttta
1141 gaagaccatt accattctga cgtggcatat cacaacagcc tgcacgtgc tgatgtagcc
1201 cagtcgaccc atgttctcct ttctacacca gcattagacg ctgtcttcac agatttggag
1261 atcctggctg ccatttttgc agctgccatc catgacgttg atcatcctgg agtctccaat
1321 cagtttctca tcaacacaaa ttcagaactt gctttgatgt ataatgatga atctgtgttg

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1381 gaaaatcatc accttgctgt gggtttcaaa ctgctgcaag aagaacactg tgacatcttc
1441 atgaatctca ccaagaagca gcgtcagaca ctgaggaaga tggttattga catggtgtta
1501 gcaactgata tgtctaaaca tatgagcctg ctggcagacc tgaagacaat ggtagaaacg
1561 aagaaagtta caagttcagg cgttcttctc ctgacaaact ataccgatcg cattcaggtc
1621 cttcgcaaca tggtagactg tgcagacctg agcaacccca ccaagtcctt ggaattgtat
1681 cggaatgga cagaccgcat catggaggaa tttttccagc agggagacaa agagcgggag
1741 aggggaatgg aaattagccc aatgtgtgat aaacacacag cttctgtgga aaaatcccag
1801 gttggtttca tcgactacat tgtccatcca ttgtgggaga catgggcaga tttggtacag
1861 cctgatgctc aggacattct cgatacctta gaagataaca ggaactggta tcagagcatg
1921 atacctcaaa gtccctcacc accactggac gagcagaaca gggactgcca gggctctgatg
1981 gagaagtttc agtttgaact gactctcgat gaggaagatt ctgaaggacc tgagaaggag
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2101 agagattccc tgggagagac tgacatagac attgcaacag aagacaagtc ccccggtgat
2161 aca
1 tatcacaaca gcatgcagc agccgatgtt acccagacag tccattgctt cttgctccgc
61 acagggatgg tgcactgcct gtcggagatt gagctcctgg ccatcatctt tgctgcagct
121 atccatgatt atgagcacac gggcactacc aacagcttcc acatccagac caagtcagaa
181 tgtgccatcg tgtacaatga tcgttcagtg ctggagaatc accacatcag ctctgttttc
241 cgattgatgc aggatgatga gatgaacatt ttcataacc tcaccaagga tgagtttcta
301 gaactccgag ccctggtcat tgagatggtg ttggctacag atatggca

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(2) INFORMATION FOR SEQ ID NO:2608:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2341 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2608

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1 ggccgcccgt cgccgcccgt ggtgcccggaa gggggctctg gatttcggtc cctccccttt
61 ttcctctgag tctcggaacg ctccagctct cagaccctct tctcccagg taaaggccgg
121 gagaggaggg cgcatctctt ttccaggcac cccaccatgg gcaatgcctc caatgactcc
181 cagtctgagg actgcgagac gcgacagtgg cttccccagc gcgaaagccc agccatcagc
241 tccgtcatgt tctcgccggg ggtgctgggg aacctcatag cactggcgct gctggcgcgc
301 cgctggcggg gggacgtggg gtgcagcgcc ggccgagga gctccctctc cttgttccac
361 gtgctggtga ccgagctggt gttcacccagc ctgctcggga cctgcctcat gcaccagtg
421 gtactggctt cgtacgcgcg gaaccagacc ctggtggcac tggcgcccga gagccgcgcg
481 tgcacctact tcgctttcgc catgaccttc ttcagcctgg ccacgatgct catgctcttc
541 gccatggccc tggagcgcta cctctcgatc gggcaccctt actctacca gcgcccgcgc
601 tcggcctccg ggggcctggc cgtgctgcct gtcactatg cagtctccct gctctctgc
661 tcgctgccgc tgcctggacta tgggcagtac gtccagtact gccccgggac ctggtgcttc
721 atccggcacg ggcggaccgc ttacctgcag ctgtacgcca cctgctgct gcttctcatt
781 gtctcggtgc tcgctgcaa cttcagtgtc attctcaacc tcatccgat gcaccgcga
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901 aggagagggg aaagggtgtc catggcggag gagacggacc acctcattct cctggctatc
961 atgaccatca ccttcgccgt ctgctccttg cctttcacga tttttgcata tatgaatgaa
1021 acctcttccc gaaaggaaaa atgggacctc caagctctta ggtttttatc aattaattca
1081 ataattgacc cttgggtctt tgccatcctt aggcctcctg ttctgagact aatgcgttca
1141 gtccctctgt gtccgatttc attaagaaca caagatgcaa cacaaccttc ctgttctaca
1201 cagtcagatg ccagtaaaca ggctgacctt tgaggtcagt agtttaaaag ttcttagtta
1261 tatagcatct ggaagatcat ttgaaattg ttccctggag aaatgaaaac agtgtgtaaa
1321 caaaatgaag ctgccctaata aaaaaggagt atacaaacat ttaagctgtg gtcaaggcta
1381 cagatgtgct gacaaggcac ttcattgtaa gtgtcagaag gagctacaaa acctaccctc
1441 aatgagcatg gtacttggcc tttggaggaa caatcgctg cattgaagat ccagctgcct
1501 attgatttaa gctttcctgt tgaatgacaa agtatgtggt tttgtaattt gtttgaacc
1561 ccaaaagctg actgtacttt ctattttaat cttgctacta ccgttatata catatagtgt
1621 acagccagac cagattaaac ttcatatgta atctctagga agtcaatatg tggaaacaac
1681 caagcctgct gtcttgtgat cacttagcga accctttatt tgaacaatga agttgaaaat
1741 cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt
1801 actcttaciaa gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa
1861 ctgcaggtca agttgtcagg ttatttattt tataatgtcc atatgctaag agtgatcaag
1921 aagactttag gaatggttct ctcaacaaga aataatagaa atgtctcaag gcagtttaatt
1981 ctcatataata ctcttattat cctatttctg ggggaggatg tacgtggcca tgtatgaagc
2041 caaatattag gcttaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt
2101 ttaaagttga tattggggcc atgagtaaaa tagattttat aagatgactg tgtgtacca
2161 aaattcatct gtctatattt tatttagggg aacatggttt gactcatctt atatgggaaa
2221 ccatgtagca gtgagtcata tcttaataata tttctaaatg tttggcatgt aaatgtaaac
2281 tcagcatcaa aatatttcag tgaatttgca ctgtttaatc atagttactg tgtaaaactca
2341 tctgaaatgt tacaaaaata aactataaaa ca

```

(2) INFORMATION FOR SEQ ID NO:2609:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1321 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2609

```

1  gggggcgcca gggctgagcg gccggtgatg gggacccac atccaggca gtgccggcac
61  ccctggcgcc tgacatgagc ccttgcgggc ccctcaacct gagcctggcg ggcgaggcga
121 ccacatgcgc ggcgccttgg gtccccaaca cgtcggccgt gccgcccgtg ggcgttcgc
181 ccgcgctgcc catcttctcc atgacgctgg gcgcgctgtc caacctgctg gcgctggcgc
241 tgctggcgca ggcgcgggac cgctgagac gccgcgctc ggccaccacc ttctgtgtgt
301 tcgtggccag cctgctggcc accgacctgg cgggccacgt gatcccgggc gcgctggtgc
361 tgcgtctgta cactgcgggg cgcgctccgg ccggcggggc ctgccacttc ctgggcggct
421 gcatggctct cttcgccctg tgcccgctgc tgcgtggctg tggcatggcc gtggagcgct
481 gcgtggcggt cagcggcgcc ctgctccacg ccgcgcgggc ctcggtcgcc cgcgcgcgcc
541 tggcgtggcc cgcggtggcc gcggtggcct tggccgtggc gctgctgccg ctggcgcgcg
601 tgggccccta tgagctgcag taccggggca cgtggtgctt catcgccctg ggtccccggg
661 gcgctggcgc ccaggcactg cttgctggcc tcttcgccag cctcggcctg gtcgcgtccc
721 tcgcccgcgt ggtgtgcaac acgctcagcg gcctggccct gcacgcgcgc cgttggcgac
781 gccgctcccg acggcctccc ccggcctcag gcccgcagac ccggcgctgc tggggggcgc
841 acggaccccc ctcggcctcc gcctcgtccg cctcgtccat cgcttcggcc tccaccttct
901 ttggcggctc tcggagcagc ggctcggcac gcagagctcg cggccacgac gtggagatgg
961 tgggccagct tgcggtatc atggtggtgt cgtgcactcg ctggagccca atgctggtgt
1021 tggtggcgct ggccgtcggc ggctggagct ctacctccct gcagcgccca ctgttcttgg
1081 ccgtgcgcct tgcctcctgg aaccagatcc tggacccttg ggtgtacatc ctactgcgcc
1141 aggcgctgct gcgccaactg cttcgctctt tgcccccgag ggccggagcc aaggggcgcc
1201 ccgcggggct gggcctaaca ccgagcgctt gggaggccag ctgcgtgcgc agctccccgc
1261 acagcgccct cagccacttc taagcacaac cagaggccca acgactaagc cagcccaccc
1321 tgggctgggc ccaggtgcgc ggcgcagagc ctttgggaat aaaaagccat tctgcg

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(2) INFORMATION FOR SEQ ID NO:2610:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1021 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2610

```

1  atgggcaatg cctccaatga ctccagttct gaggactgcy agacgcgaca gtggcttccc
61  ccaggcgaaa gccagccat cagctccgtc atgttctcgg ccggggtgct ggggaacctc
121 atagcactgg cgctgctggc gcgcgctgg cggggggacg tggggtgcag cgcggccgc
181 aggagctccc tctccttgtt ccacgtgctg gtgaccgagc tgggtttcac cgacctgtc
241 gggacctgcc tcatcagccc agtggtactg gcttcgtacg cgcggaacca gacctgggtg
301 gcactggcgc ccgagagccg cgcgtgcacc tacttcgctt tcgccatgac cttcttcagc
361 ctggccacga tgctcatgct cttcgccatg gccctggagc gctacctctc gatcgggcac
421 cctactttct accagcgccg cgtctcgcgc tccgggggcc tggccgtgct gcctgtcatc
481 tatgcagtct ccctgctctt ctgctcgtcg ccgctgctgg actatgggca gtacgtccag
541 tactgccccg ggacctgggt cttcatccgg cacgggcgga ccgcttacct gcagctgtac
601 gccacctgcy tgcgtctctt cattgtctcg gtgctcgcct gcaacttcag tgtcattctc
661 aacctcatcc gcatgcaccg ccgaagccgg agaagccgct gcggaccttc cctgggcagt
721 ggccggggcg gcccgggggc ccgcaggaga ggggaaaggg tgtccatggc ggaggagacg
781 gaccacctca ttctcctggc tatcatgacc atcaccttcg ccgtctgctc cttgccttcc
841 acgatttttg catatatgaa tgaacctctt tcccgaaggg aaaaattgga cctccaagct
901 cttaggtttt tatcaattaa ttcaataatt gacccttggg tctttgccat ccttaggcct
961 cctgttctga gactaatgcy ttcagtcctc tgttgcgga tttcattaag aacacaagat
1021 gcaacacaaa cttcctgttc tacacagtca gatgccagta aacaggctga ctttga

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(2) INFORMATION FOR SEQ ID NO:2611:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1201 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2611

```

1  ctgcagatgg gaagaggttt ttccaggaat ttaaattgtg caataaggcc acacaatctt
61  acttaaaaaa aatggtgaag gggttttaat tacaccatga agttttacaa ttttttaggt
121 ttttagttct ggttttagaa aacagagtag aaggattaac agagaaaaac ttaccatta
181 gacaagaagt caaatgatt ctaagggccg cgcaaacagg ctttccaaga attaatcatg
241 aggtggtgct tggagaattc ctttactcca gtgactttga aaccccttc tcaacttcca

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301 ctagtctttc aaaggattca tggatgaattg ggtctaacga gtataacacg gccggccgaa
361 cgaatgaagct cacgctaccc ttccagggcg gagaagtcc caggaggaag aatggagaaa
421 aagatcgagc ttaggcagtc ctccaacct caccaaggct ccacctctct ccaaagccgc
481 aacgtgctgc cacctgcgcc gggagaggct gcaatcactg tctctctctc tttctttctc
541 tttttttttt tttttttttt gcttggggtg cccgaccaag cgcagccgca gctctggcac
601 tgccaactga ctccaactcc ttttatgggt agaggatgga ttcttctgta tttccccgcc
661 caatctggta cccacccacc caccacacca ccacgtccgc tggggcacc caagtctaac
721 cccggggcg cgcgcgtagc gcagacaccg tttttctct cctttctcgg ccaaccctag
781 gtagaatcct aaaacaactg ccctctcttc cacgatctag atgttgccgc ccgaggacag
841 gaggttcaag aaatagtaca ctccgagcgg caggcagcga gagcggaac ggtcgcgggt
901 ttcagtgggt gcccactgg aagccgagtt caggagcggc taagcgtcgc cggggaaagc
961 accggggctt cccagggctt cctccgagtt cccactccgc acctccgag gcgtgaaaac
1021 caggggagcc gcccgcgccg cgcgcccagc cccgcccag cccagacacc gcccccgc
1081 agtcttccct gcggcgccca gggaggacgc cgtccgcccc cttccaatcc ggccaatggg
1141 cgcccgggca gcgcgcggtt tgctccgcc tccgcccagg aaacttgag gaggagaaaa
1201 gtttgtacag aggggtgaaa ggcgcagca cgcgagctcc a

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(2) INFORMATION FOR SEQ ID NO:2612:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2101 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2612

```

1 agccccgagc cccgagagga agatgaacag ccccgaggca gagcctctgc gagagtggac
61 cccgagccgc ccccgagtag ccaggagcgg cctcagcgcc agccgcaaac tccagtagcc
121 gcccggtgctg cccgtgctgg ggcggagggc agccagagct ggggaccaag gctccgcgcc
181 acctgggcac agcctcacac ctgaacgctg tcttcccgca gacgagaccg gcgggactg
241 caaagctggg actcgtcttt gaaggaaaaa aaatagcgag taagaaatcc agcaccattc
301 ttcactgacc catcccgtg cacctcttgt ttcccaagtt tttgaaagct ggcaactctg
361 acctcggtgt caaaaaatcg acagccactg agaccggctt tgagaagccg aagatttggc
421 agtttccaga ctgagcagga caaggtgaaa gcaggttgga ggcgggtcca ggacatctga
481 gggctgaccc tgggggctcg tgaggctgcc accgtgctg cgcgtacagg tgagatggcg
541 ttgggctgac gttggggtca acgggtagag aacgagggat gccgccctcg ccgaagagag
601 ccaagagggg aagagcgcg cctccaaatt gctttttaa cttgttttca gtgagcattt
661 tattgattca gaatctatcg agaatagcac tagcgagcta ctttccctt gagatgggtc
721 ttattcatct tggcaatgga gtgagttgga ttgtggggag gaagaggaat gggaaaatca
781 gtttataaat attaatgtca gccaaagagt tgctgttggc aggacgtatc gcgagcctgg
841 agattttggt ggccgagtt ggttaagtggc tacaatccag aaagtaggat cgagttgctc
901 cccttgtctt atcagtgtat cgtttctcgg gcgcgggtct aacaccttac aagtggtaat
961 ttcgctcac ggcagctttg tctctcttct accatcccca gaccagcctc tgcactccaa
1021 ggctgcgcac cgccagccac tatcatgtcc actcccgggg tcaattcgtc cgcctccttg
1081 agccccgacc ggctgaacag cccagtaacc atcccgcgcg tgatgttcat cttcgggggtg
1141 gtgggcaacc tgggtggcat cgtggtgctg tgcaagtcgc gcaaggagca gaaggagacg
1201 accttctaca cgctggtatg tgggctggct gtcaccgacc tgttgggcac tttgttgggtg
1261 agccccgtga ccatcgccac gtacatgaag ggccaatggc ccggggggcca gccgctgtgc
1321 gagtacagca ctttcttct gctcttcttc agcctgtccg gcctcagcat catctgcgcc
1381 atgagtgtcg agcgctacct ggccatcaac catgcctatt tctacagcca ctacgtggac
1441 aagcgatttg cgggctcac gctctttgca gtctatgcgt ccaacgtgct cttttgcgcg
1501 ctgccaaca tgggtctcgg tagctcgcgg ctgcagtacc cagacacctg gtgcttcac
1561 gactggacca ccaacgtgac ggcgcacgcc gcctactcct acatgtacgc gggcttcagc
1621 tcttctctca ttctcgccac cgtcctctgc aacgtgcttg tgtgcggcgc gctgctccgc
1681 atgcaccgcc agttcatgcg ccgcacctcg ctgggacccg agcagacca cgcggccgcg
1741 gccgctcgg tgcctcccg gggccacccc gctgcctccc cagccttgcg gcgctcagc
1801 gactttcggc gccgcccgg cttccgccc atcgcggggc ccgagatcca gatggtcatc
1861 ttactcattg ccacctccct ggtggtgctc atctgctcca tcccgcctgt ggtgagtgc
1921 cgggggtggg gccctactcg gcctttttct cgcacccacc tcccgcctcc attcccgcct
1981 ccctgttttc cctctgagtc cttgggagtg aacgtgtcgc ctttaggtcg gggctgggat
2041 tcccacactg tttctcagag gagggccaac ccctctttg aagtcctaac cctaaccgca
2101 ttttagcaggt gctttggccc tacatcccc agtttatggt tcccgaagg ctgg

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(2) INFORMATION FOR SEQ ID NO:2613:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 781 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2613

```

1 agcccatgac tggtttttct gaggcttatt atgtagcttc ctcttttccct ggaacttgtt

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61 accagaaatg aaggcagctt cctaataattg ataaggtaga catagcattt atatgttttc
121 ccaattgatt aatgatgaaa tctaataattg cgactcactt atgcagggtgc gaggattcgt
181 caaccagtta tatcagccaa gtttgaggcg agaagtcagt aaaaatccag atttgaggcg
241 catccgaatt gcttctgtga accccatcct agacccttgg atatatatcc tcttgagaaa
301 gacagtgtct agtaaaagcaa tagagaagat caaatgcctc tcttgccgca ttggcgggtc
361 ccgcaggagg cgctccggac agcactgtct agacagtcaa aggacatctt ctgccatgtc
421 aggccactct cgctccttca tctcccgga gctgaaggag atcagcagta catctcagac
481 cctcctgccg gacctctcac tgccagacct cagtgaatat ggccttggag gcaggattt
541 gcttccaggt gtgcctggca tgggcctggc ccaggaaagac accacctcac tgaggacttt
601 gcgaatatca gagacctcag actcttcaca gggtcaggac tcagagagtg tgttactggt
661 ggatgaggct ggtggaagcg gcagggcagg gcctgccctt aaggggagct ccttgcaagt
721 cacatttccc agtgaacac tgaaacttatc agaaaaatgt atataatagg caaggaaaga
781 aatacagtac tgtttctgga cccttataaa atcctgtgca atagacacat acatgtcaca

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(2) INFORMATION FOR SEQ ID NO:2614:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 8766 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2614

```

1 gggccgccgt cggcgcgctg ggtgcgggaa gggggtctg gatttcggtc cctccccttt
61 ttctctctgag tctcggaacg ctccagctct cagaccctct tctcccagg taaaggccgg
121 gagaggaggg cgcatctctt ttccaggcac cccaccatgg gcaatgcctc caatgactcc
181 cagtctgagg actgcgagac gcgacagtgg cttccccag gcgaaagccc agccatcagc
241 tccgtcatgt tctcgccggg ggtgctgggg aacctcatag cactggcgct gctggcgcg
301 cgctggcggg gggacgtggg gtgcagcgcc ggcgcgagga gctccctctc ctgtttccac
361 gtgctggtga ccgagctggt gttcaccgac ctgctcgga cctgcctcat cagccagtg
421 gtactggctt cgtacgcggc gaaccagacc ctggtggcac tggcgcccga gagccgcgg
481 tgcacctact tgcctttcgc catgaccttc ttcagcctgg ccacgatgct catgctcttc
541 gccatggccc tggagcgcta cctctcgatc gggcaccctt acttctacca gcgccgcgtc
601 tcggcctccg ggggcctggc cgtgctgctt gtcactatg cagtctccct gctcttctgc
661 tcgctgcccg tgctggacta tgggcagtac gtccagtact gccccgggac ctggtgcttc
721 atccggcacg ggcggaccgc ttacctgcag ctgtacgcca ccctgctgct gcttctcatt
781 gtctcggtgc tcgcctgcaa cttcagtgct attctcaacc tcatccgcat gcaccgcccga
841 agccggagaa gccgctgccc accttccctg ggcagtgggc gggggcgccc cggggccgcg
901 aggagagggg aaaggggtgc catggcggag gagacggacc acctcattct cctggctatc
961 atgaccatca ccttcgcccgt ctgctccttg cctttcacga tttttgcata tatgaatgaa
1021 acctcttccc gaaaggaaaa atgggacctc caagctctta ggtttttatc aattaattca
1081 ataattgacc cttgggtctt tgccatcctt aggcctcctg ttctgagact aatgcgttca
1141 gtctctgtgt gtcggatttc attaagaaca caaatgcaa cacaaattc ctgttctaca
1201 cagtcagatg ccagttaaaca ggctgacctt tgaggtcagt agtttaaaag ttcttagtta
1261 tatagcatct ggaagatcat tttgaaattg ttccctggag aaatgaaaac agtgtgtaaa
1321 caaatgaag ctgcccta ataaaaggagt atacaaacat ttaagctgtg gtcaaggcta
1381 cagatgtgct gacaaggcac ttcatgtaaa gtgtcagaag gagctacaaa acctaccctc
1441 aatgagcatg gtacttgccc tttggaggaa caatcgctg cattgaagat ccagctgcct
1501 attgatttaa gctttcctgt tgaatgacaa agtatgtggt tttgtaattt gtttgaacc
1561 ccaaacagtg actgtacttt ctattttaat cttgtacta ccgttatata catatagtgt
1621 acagccagac cagattaaac ttcatatgta atctctagga agtcaatatg tggaaagcaac
1681 caagcctgct gtcttgtgat cacttagcga accctttatt tgaacaatga agttgaaaat
1741 cataggcacc ttttactgtg atgtttgtgt atgtgggagt actctcatca ctacagtatt
1801 actcttacaa gagtggactc agtgggttaa catcagtttt gtttactcat cctccaggaa
1861 ctgcagggtc agttgtcagg ttattttatt tataatgtcc atatgcta atgtgatcaag
1921 aagactttag gaatggttct ctcaacaaga aataatagaa atgtctcaag gcagttaatt
1981 ctcatataa ctcttattat cctattttct ggggaggatg tacgtggcca tgtatgaagc
2041 caaatattag gcttaaaaac tgaaaaatct ggttcattct tcagatatac tggaaacctt
2101 ttaaagttga tattggggcc atgagtaaaa tagattttat aagatgactg tgttgtacca
2161 aaattcatct gtctataatt tatttagggg aacatggttt gactcatctt atatgggaaa
2221 ccatgtagca gtgagtcata tcttaataata tttctaaatg tttggcatgt aaatgtaaac
2281 tcagcatcaa aatatttcag tgaatttgca ctgtttaatc atagttactg tgtaaactca
2341 tctgaaatgt taaaaaata aactataaaa ca
1 gggggcgcca gggctgagcg gccgggtgat gggacccac atccaggca gtgccggcac
61 ccttgccgcc tgacatgagc ccttgccggc cctcaacct gagcctggcg ggcgaggcga
121 ccacatgcgc ggcgccttgg gtcccaaca cgtcgccgtg gccgcgctg ggcgcttcgc
181 ccgcgctgcc catcttctcc atgacgttgg gcgccgtgtc caacctgctg gcgctggcgc
241 tgctggcgca ggcgcggggc cgctgcgac gccgcgctc gccaccacc tctctgctgt
301 tcgtggccag cctgctggcc accgacctgg cgggccacgt gatcccgggc gcgctggtgc
361 tgcgtctgta cactgcgggg cgctcctgg ccggcggggc ctgccacttc ctggcggtc
421 gcatggtctt cttcgccgtg tgcccgctgc tgctgggctg tggcatggcc gtggagcgtc

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481 gcgtgggctg cagcgggcgt ctgctccacg ccgcgcggggt ctggtgcgc cgcgcgcgc
541 tggcgctggc cgcgggtggc gcggtggcct tggccgtggc gctgctgccc ctggcgcgcg
601 tgggcccgtc tgagctcag taccggggca cgtggtgctt catcgccctg ggtcccccg
661 gcggtggcgc ccaggcactg cttgctggcc tcttcgccag cctcgccctg gtcgcgctcc
721 tcgcgcgcgt ggtgtgcaac acgctcagcg gcctggccct gcatcgcgcc cgctggcgac
781 gccgctccc acggcctccc ccggcctcag gcccgcacag ccggcgctgc tggggggcg
841 acggaccccg ctggcctccc gcctcgctcg cctcgctccat cgcttcggcc tccacctct
901 ttggcggtc tcggagcagc ggctcggcac gcagagctcg cggccacgac gtggagatgg
961 tgggccagct tgcggtatc atggtggtgt cgtgcatctg ctggagccca atgctggtgt
1021 tgggtggcgt ggccgtcggc ggctggagct ctacctcctt gcagcgccca ctgttcctgg
1081 ccgtgcgcct tgccctcctg aaccagatcc tggaccttg ggtgtacatc ctactgcgcc
1141 aggcgctgct gcgccaactg ctcgcctct tggcccgag ggccggagcc aaggggcgcc
1201 ccgcggggct gggcctaaca ccgagcgcc cggaggccag ctcgctgcgc agctcccgcc
1261 acagcgccct cagccactc taagcacaac cagaggccca acgactaagc cagccacccc
1321 tgggctgggc ccaggtgcgc ggcgagagc ctttgggaat aaaaagccat tctgcg
1 atgggcaatg cctccaatga ctcccagctt gaggactcgc agacgcgaca gtggcttccc
61 ccaggcgaaa gccagccat cagctccgtc atgttctcgc ccggggtgct ggggaacctc
121 atagcactgg cgtgctggc gcgcgctgg ccgggggagc tggggtgcag cgccggccgc
181 aggagctccc tctcctggt ccacgtgctg gtgaccgagc tgggtgtcac cgacctgctc
241 gggacctgcc tcatcagccc agtggtactg gcttcgtacg cgcggaacca gacctggtg
301 gcactggcgc ccgagagccg cgcgtgcacc tacttcgctt tcgccatgac cttcttcagc
361 ctggccacga tgctcatgct ctccgccatg gccctggagc gctacctctc gatcgggac
421 ccctacttct accagcgccg cgtctcgcgc tccggggggc tggcggtgct gcctgtcatc
481 tatgcagtct ccctgctctt ctgctcgtg ccgctgctgg actatgggca gtacgtccag
541 tactgccccg ggacctggtg cttcatccg cagggcgga ccgcttacct gcagctgtac
601 gccaccctgc tgctgctctt cattgtctcg gtgctcgctt gcaacttcag tgtcattctc
661 aacctcatcc gcatgcaccg ccgaagcccg agaagccgct gcggaccttc cctgggcagt
721 ggccggggcg gccccggggc ccgcaggaga ggggaaaggg tgtccatggc ggaggagacg
781 gaccacctca ttctcctggc tatcatgacc atcaccttcg ccgtctgctc ctgaccttc
841 acgatttttg catatatgaa tgaaacctct tcccgaagg aaaaatggga cctccaagct
901 cttaggtttt tatcaattaa ttcaataatt gaccttggg tctttgccat ccttaggct
961 cctgttctga gactaatgcg ttcagtcctc tgtgtcgga tttcattag aacacaagat
1021 gcaacacaaa cttctgttc tacacagtca gatgccagta aacaggctga ctttga
1 ctgcagatgg gaagaggttt ttccaggaat ttaaattgtg caataaggcc acacaattct
61 acttaaaaaa aatggtgaag gggttttaat tacaccatga agttttaca ttttttaggt
121 ttttagttct ggttttagaa aacagagtag aaggattaac agagaaaaac ttcaccatta
181 gacaagaagt caaatgatt ctaaggggcg cgaacacag ctttccaaga attaatcatg
241 agtggtgct tggagaattc ctttactcca gtgactttga aaccccttc tcaactcca
301 ctagtcttcc aaaggattca tggtagattg ggtctaacga gtataacacg ccgggcccga
361 cgatgaagct cagcgtaccc tttcagggcg gagaagttcc caggaggag aatggagaaa
421 aagatcgag ttaggcagtc ctccaacct caccaaggct ccacctctc ccaagccgc
481 aacgtgctgc cacctcgcc ggagagggc gcaatcactg tctcctctc tttcttctc
541 ttttttttt tttcttttt gcctgggggt cccgaccaag cgcagccgca gtctgggac
601 tgccaactga ctccaactc ttttatggtg agaggatgga tttctcgta tttccccgc
661 caacttggt cccaccacc caccaccaca ccagtcgcg tggcgccacc caagtctaac
721 cccggggcg acgccgtagc gcagacaccg tattctctc ctttctcgg ccaacctag
781 gtagaatcct aaaacaactg ccctctctc cagatctag atgttgcgg ccgaggacag
841 gaggttcaag aaatagtaca ctccgagcgg caggcagcga gagcggaac ggtcgccgt
901 ttcagtgtg gccccactg aagccgagtt caggagcggc taagcgctgc cggggaagc
961 accggggctt ccaggggtc cctccaggt cccactccgc acctccgag gcgtgaaaac
1021 caggggagc gcccgcccc gcgcgccag cccgccccag ccagacacc ccccccgcc
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1201 gtttgtacag agggtggaag ggccgcagca cgcgagctcc a
1 agcccgagc cccgagagga agatgaacag cccagggcca gagcctctgc gagagtggac
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121 gcccggtgct cccgtgctgg ggccgggggc agccagagct ggggaccaag gctccgcgcc
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301 ttcactgacc catcccgct cactcttgt tttccaagtt tttgaaagct ggcaactctg
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421 agtttccaga ctgagcagga caaggtgaaa gcaggttga ggcggttcca ggacatctga
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541 ttgggtgac gttgggtgca acgggtagag aacgaggat gccgcctc ccaagagag
601 ccaagaggg aagagcgcg tctccaaatt gctttttaa cttgtttta gtgagcattt
661 tattgattca gaattctatc agaatagcac tagcgagcta cttccctt gagatgggtc
721 ttattcatct tggcaatgga gtgagttgga ttgtggggag gaagaggaat gggaaaatca
781 gtttataaat attaatgtca gccaaagagt tgctgttggc aggacgtatc gcgagcctgg

841 agatttttgggt ggccgcagtt ggtaagtggc tacaatccag aaagtaggat cgagttgctc
901 cccttgtctt atcagtgtat cgtttctcgg gcgcggtct aacaccttac aagtggtaat
961 ttccgctcac ggcagctttg tctctcttct accatcccca gacccagcct tgcactccaa
1021 ggctgcgcac cgccagccac tatcatgtcc actcccgggg tcaattcgtc cgcctccttg
1081 agccccgacc ggctgaacag cccagtaacc atcccggcgg tgatgttcat cttcgggggtg
1141 gtggggcaacc tgggtggcat cgtgtgtcgt tgcaagtccg gcaaggagca gaaggagacg
1201 accttctaca cgctgggtatg tgggtgggt gtcaccgacc tgttgggcac tttgttgggtg
1261 agccccgtga ccatcgccac gtacatgaag ggccaatggc cggggggcca gccgtgtgc
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1381 atgagtgtcg agcgctacct ggccatcaac catgcctatt tctacagcca ctacgtggac
1441 aagcgattgg cgggctcac gctctttgca gtctatgct ccaacgtgct cttttgcgcg
1501 ctgccccaca tgggtctcgg tagctcgcgg ctgcagtacc cagacacctg gtgcttcac
1561 gactggacca ccaacgtgac ggcgacgccc gcctactcct acatgtacgc gggcttcagc
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1681 atgcaccgcc agttcatgcg ccgcacctcg ctgggcaccg agcagacca cgcggccgcg
1741 gccgcctcgg ttgectcccg gggccacccc gctgcctccc cagccttgcc gcgcctcagc
1801 gactttcggc gccgcgggag cttccgccc atcgcgggcg ccgagatcca gatggtcac
1861 ttactcattg ccacctccct ggtggtgctc atctgtcca tcccgtcgt ggtgagtgc
1921 cgggggtggg gccctactcg gcctttttct cgcattccacc tcccgcgtcc attcccgtc
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2101 ttttagcaggt gctttggccc tacatccccc agtttatgtt tcccgaagg ctgg
1 agcccatgac tggtttttct gaggttatt atgtagcttc ctcttttctt ggaacttgtt
61 accagaaatg aaggcagctt cctaataattg ataaggtaga catagcattt atatgttttc
121 ccaattgatt aatgatgaaa tctaaatgtg cgactcactt atgcaggtcg gagtattcgt
181 caaccagtta tatcagccaa gtttggagcg agaagtcagt aaaaatccag atttgagcgc
241 catccgaatt gcttctgtga accccatcct agacccttg atatatatcc tcttgagaaa
301 gacagtgtc agtaaagcaa tagagaagat caaatgcctc ttctgccga ttggcgggtc
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421 aggccactct cgctccttca tctcccggga gctgaaggag atcagcagta catctcagac
481 cctcctgcca gacctctcac tgccagacct cagtgaatat ggccttggag gcaggaattt
541 gcttccaggt gtgcctggca tggcctggc ccaggaagac accacctcac tgaggactt
601 gcgaatatca gagacctcag actcttcaca gggtcaggac tcagagagtg tgttactggt
661 ggatgaggct ggtggaagcg gcaggcgagg gcctgcccct aaggggagct ccctgcaagt
721 cacatttccc agtgaacac tgaacttatc agaaaaatgt atataatagg caaggaaaga
781 aatacagtac tgtttctgga cccttataaa atcctgtgca atagacacat acatgtcaca

(2) INFORMATION FOR SEQ ID NO:2615:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4861 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2615

1 aagcttctctg tacctggaat attaatattt ttttccagat ttgggaaatt ttcagctagc
61 aatctttaaa tatgctttct gacccctttt tctctattt tctccttctt aaactactgt
121 aatgtgaaca ttagtctctt tttttaattt ttaatttaatt ttttgtttt attttttgag
181 atgcagtctc actctgtcac ccaggctgga gtgcagtggc atgatctcag ctcactgcaa
241 cctttgcctt ctaggttgaa gagattctgc tgcctcagtc tccccatgag ctgggattac
301 agcatgtgcc acaatccctg gctaattttt ttgtattttt agtagagact gggtttcacc
361 atgttggtca ggctggtctt gactcctgac ctcaggtgat ccactcacct tggcctccca
421 aagcgtctggg attatggcat gagccactga gtctggctga atgttagctc tcttgatgct
481 gtcccataaa tctttaggc tttcatcatt tcttttcatt cttttttctc ctctcactgt
541 atattttcaa aaacctgtct tcagttcaca gattctttct tctgcttgat caagtctgct
601 actggtgatt tctactgcat tttcacttcc attcattata tttttcagct ccaatttctt
661 ttatgatttc aatctttctg ttacatttct tatgttgtgc atttattggt tctctgattt
721 caccaaattg tttctctgtg ttgtcttcaa agtaactgag cttctttaaa aacaattatc
781 ttgaatccat tgtcaggcca tttgtagtac tccatttctt ttgggtcagc tactgggaaa
841 ttattgtgtt tcttaggtgg tgatatttta atttgggtt tcatgtttct tgcctgctta
901 cactgctgtc tgagcatctg gtgatctgc cccaatttca ggctgtatgg gctgactttg
961 gtggagaaat accttcttat gtggaataat gcgaggatgc tggctgggtg ggatgcaaaa
1021 gttctgactt cagtggggc aaagctgtgt ggtctccatg cagatctgtc agctgaggtt
1081 ggtgttagtg aatactacag ggatccttag aggccaaacac tgtgggtatc tacagtggca
1141 atgaggctgt tgaggttttc aattgtgaca agtctccat atctcttttt tccccacct
1201 gggaagtcac gactgaggac atccctcttg gaattaggtc taacttgca gctgtcctc
1261 ggtggtggtg aactggtgt ctgatgaaca gtgcccattg agtggccaag agccaaggcc
1321 tgaagcatgg gcatgcatgg agggaccaca gcaccagatt caattgtagc aatggtacca
1381 gtgcccaggc cacaggcata cttactatca cattgataat ggtgtgtaaa atgcaggtac

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1441 ttataaagca gctaaggagc cagggacttt actgcatgca tacgcagagc tacagtggct
1501 ccaggatcca ggggtgtggc tagctctcct tgggtggctga gctgtgact agagcatgga
1561 caggcacaga gaaaccttga ctctaggacc caggggtgtc actagctcac tatagtgggtg
1621 gctctgggtg tggagggtgt ggtgtgtgta gtacagcctc agagacaggg tctggagcgc
1681 aggtgtgcac attactacag cagctctgga gttgagaata tgggtctact ttctacagt
1741 gctgaactag tgtctggagc aaagactttc acagagagaa cttggcttct ggtcccagg
1801 tgagatctag ttcacaacag cagtactcc agtgtctgag acatgaggag gtgcaactgca
1861 gccacagagc cacagtccag agtgtgaata tctgtagagc agccacaact tttggggatc
1921 aggaacacac atagaattgt gagagggtgt aaccctggcc ccagtccctg cgagtgcaac
1981 aatagctgct tcttgggtgag ggggtgtgag gggtagtgca actgtgtttc cctttttagc
2041 atcctgctat gggaatggct gttggacaaa agatgccagt gtcctctgtg gaggcaggca
2101 ctgggggcct cagtggctct gtgtcacatg actgacacag atagcctaca aatttcttta
2161 ttcgtagcta tctcctgggt tctcatatat gccagtctca ccggtgatcc ttctacatga
2221 atattctttc ttttctccat tgtgtgttcc caaattcttt aacaggctct tgagccccat
2281 cccccaactc cccacccttg tgagggctat tttggttgt gtataactgt ctatgtttgt
2341 ttttttgttg gggcataagg ctgacatctc ctactccacc atcttgctaa tgtcacctgc
2401 ataggaatct ttttatgctt tccttatatt cactaaaatt taacaatatc aaacttaaaa
2461 acatatgac aattgaactt attaatatca aacttattat aaataagaaa ctaccaggct
2521 gggcatggtg gctcatgcct gtaatcccaa ctttttggga ggctgagggt aaaggatcac
2581 ttgagcccag gaattcaaga ccagcctggg aaatatagag agaccctatc tctagagatt
2641 ttttttttta attagccagt agtgatggca cacatctata gtcccagcta ctcaggaggc
2701 tgagggtgga gaattgcttg agcccaggag gtcaaggctg cagcaagcag taatcatgcc
2761 actgcaactc agcctgggccc gcagagtgtg accctgtctc aaaaaagaa cctactagtc
2821 tacataccac acttcttcat cccatctga gactatata attttttcta acatgaggca
2881 atgcaaaaaa gagagctgg tgagtgaag taagaacaga aagacatgga ggcaagcttt
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3001 acattaaatt catttaattg tccttacatg tctatgtatt tggtgattat tatccttatt
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3181 tcctcacaat catggtagaa agcaaaagac acgtcttaca tggcagcagg gaagagagag
3241 aaatgagaac caaacaagaag ggttttcccc ttataaaacc atcagctctc atgcgactta
3301 ttcactacca tgagaacagt atgggggaaa ccaccccatg gattcaatga tctaccagg
3361 gcctcccaca acctgtggga attatgggag ctacaattcc agatgagatt tgggtgggga
3421 cacagccaaa ccacatcact gaggaactg agttataggg agattagtaa cgcccaacac
3481 agctggtagg tgggtggagc aggcagtctg actctagggt ctggactctg aactgcatca
3541 tgctgccaag aagttcctca ttttttctc tctctaagtt tcccttatte ccttacagtc
3601 attccttcaa cagcatttcc ttcaccatct tttctacttc tactatataa ttaatttttt
3661 cttcttggtc ccaaaattcca acgtgcacat gcagccttat atacccttat tcatctttac
3721 ctttagactt tcttccaatg tttctacttc attccatttt aaatttatcc atgagatgcc
3781 tatttacaag ctgtaaccat catgaagtga atgaagaata ataccctata ctgtacaata
3841 gaattccaag agtataaata ggagttatgg ctttctgact tgaaactaaa tacttgatac
3901 ttgattttgc tgtctgagat caatctgaaa agtaataata atcactaaca tttgttgagc
3961 atcaattgtg ggccaagtgt catttcaatc actctgtaca tattaactca tttcatccta
4021 caacaacccg gtgaggcaag ttctgttatt ctgttttaca gttgaggaaa cagaggcata
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4141 agtttaacag cacagctgaa gtcttaacca ctatgccaac agcttttttg tctacacat
4201 cccatgggaa gaggaataa aaaagggtatc tatttgtata cctttttatt tctgatataa
4261 gaagcagaat tcctttcaca tgacctatgt ctatttaata cgtcattttg aaacttacca
4321 ataaaatttc ccaagcgcca gaaaactgtt agtggtcttt tccattcttc tctatttttt
4381 tttgtgctac taattttgct tctttccctc agaaggctgc cggaatagta aacattcact
4441 gacatgtcat aattactgga aaatgggcac tggaaaatca cattgtaatt aattcaaaagc
4501 atgttttcca aatgtactac tttaaattgg agcttatatc ataatccaag gaaacctttg
4561 tgtgtgtact gttcccacat tgtcagcct gggatatcca ggagtaattc accttgccgc
4621 tgccctcaga ccatcttcca tgggaagggg tgacccttg cctcttgga accactatct
4681 ctaagctgcc aacattactc ttgcattatc aacattctaa cttcatggga agggctgtgg
4741 tgagtttctg gaatgtgaat aggaagttgt ttttctaacc agcctgacac tgaggggagg
4801 cagtgcagc gtaagcagtc tgggttgggc agaaggcaga aaaccagcag agtcacagag
4861 gagatg

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(2) INFORMATION FOR SEQ ID NO:2616:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 961 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2616

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1 gtcgaggatc cctaaagtcc tttgaagctt tcatattctg taacttttgt gccagaaggg
61 ccttacagtg agatggggtc ccagtattta ttgagtttcc tcatcctaaa aatggggata
121 ataatagtaa atgagttgac acgcgctaag acagtggaaat agtggctggc acagataaag

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181 cctcggtaaa tggtagccaa taatgataga gtatgctgta agatatcttt ctctccctct
241 gcttctcaac aagtctctaa tcaattattc cactttataa acaaggaaat agaactcaaa
301 gacattaagc acttttccaa aggtcgctta gcaagtaaat gggagagacc ctatgaccag
361 gatgaaagca agaaattccc acaagaggac tcattccaac tcatatcttg tgaaaagggt
421 cccaatgccc agctcagatc aactgcctca atttacagtg tgagtgtgct cactctcttt
481 ggggactgta tatccagagg accctcctca ataaaacact ttataaataa catccttcca
541 tggatgaggg aaaggaggta agatctgtaa tgaataagca ggaactttga agactcagt
601 actcagttag taataaagac tcagtgaact ctgatcctgt cctaactgcc actccttgtt
661 gtcccaagaa agcggcttcc tgctctctga ggaggacccc ttccctggaa ggtaaaacta
721 aggatgtcag cagagaaatt tttccaccat tgggtgcttg tcaaaagagga aactgatgag
781 ctcaactctag atgagagagc agtgagggag agacagagac tcgaatttcc ggagctattt
841 cagttttctt ttccgttttg tgcaatttca cttatgatac cggccaatgc ttggttgcta
901 ttttgaaac tccccttagg ggatgcccct caactggccc tataaagggc cagcctgagc
961 ttcagaggat caagacagca cgtggacctc gcacagcctc tcccacaggt accatg

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(2) INFORMATION FOR SEQ ID NO:2617:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1141 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2617

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1 cctccgacag cctctccaca ggtaccatga aggtctccgc ggcacgcctc gctgtcatcc
61 tcattgctac tgccctctgc gctcctgcat ctgcctcccc atattcctcg gacaccacac
121 cctgtgtgctt tgccctacatt gcccgcacac tgcccctgct ccacatcaag gagtatttct
181 acaccagtgg caagtgtccc aaccacagcag tcgtctttgt cacccgaaag aaccgccaag
241 tgtgtgccaa cccagagaag aaatgggttc gggagtagat caactctttg gagatgagct
301 aggatggaga gtccttgaac ctgaacttac acaaatttgc ctgtttctgc ttgtcttctg
361 cctagcttgg gaggttccc ctactatcc taccacccc gctccttgaa gggcccagat
421 tctgaccacg acgagcagca gttacaaaaa ccttccccag gctggacgtg ttggctcagc
481 cttgtaatcc cagcactttg ggaggccaag gtgggtggat cacttgaggt caggagttcg
541 agacagcctg gccaacatga tgaaccccca tgtgtactaa aaatacaaaa aattagccgg
601 gcgtggtagc gggcgcttgt agtcccagct actcgggagg ctgaggcagg agaatggcgt
661 gaacccggga gcggagcttg cagtgaagcg agatcgcgcc actgcactcc agcctgggag
721 acagagcgag actcctgtct aaaaaaaaaa aaaaaaaaaa aaaaaataca aaattagcc
781 gcgtggtggc ccacgcctgt aatcccagct actcgggagg ctaaggcagg aaaattgttt
841 gaacccagga ggtggaggct gcagtgaact gagattgtgc cacttcactc cagcctgggt
901 gacaaagtga gactccgtca caacaacaac aacaaaaagc ttcccaact aaagcctaga
961 agagcttctg aggcgctgct ttgtcaaaag gaagtctcta ggttctgagc tctggcttgg
1021 ccttggcttt gcaagggtc tgtgacaagg aaggaagtca gcattgcctc agaggcaagg
1081 aagggaggaa cactgcactc ttaagcttcc gccgtctcaa ccctcacag gagcttactg
1141 gcaaacatga aaatcgggg

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(2) INFORMATION FOR SEQ ID NO:2618:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2102 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2618

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1 gtcgaggatc cctaaagtcc tttgaagctt tcataattctg taacttttgt gccagaagg
61 ccttacagtg agatgggac ccagtattta ttgagtttcc tcattcataa aatggggata
121 ataatagtaa atgagttgac acgcgctaag acagtggaa agtggtctggc acagataagc
181 cctcggtaaa tggtagccaa taatgataga gtatgctgta agatatcttt ctctccctct
241 gcttctcaac aagtctctaa tcaattattc cactttataa acaaggaaat agaactcaaa
301 gacattaagc acttttccaa aggtcgctta gcaagtaaat gggagagacc ctatgaccag
361 gatgaaagca agaaattccc acaagaggac tcattccaac tcatatcttg tgaaaagggt
421 cccaatgccc agctcagatc aactgcctca atttacagtg tgagtgtgct cactctcttt
481 ggggactgta tatccagagg accctcctca ataaaacact ttataaataa catccttcca
541 tggatgaggg aaaggaggta agatctgtaa tgaataagca ggaactttga agactcagt
601 actcagttag taataaagac tcagtgaact ctgatcctgt cctaactgcc actccttgtt
661 gtcccaagaa agcggcttcc tgctctctga ggaggacccc ttccctggaa ggtaaaacta
721 aggatgtcag cagagaaatt tttccaccat tgggtgcttg tcaaaagagga aactgatgag
781 ctcaactctag atgagagagc agtgagggag agacagagac tcgaatttcc ggagctattt
841 cagttttctt ttccgttttg tgcaatttca cttatgatac cggccaatgc ttggttgcta
901 ttttgaaac tccccttagg ggatgcccct caactggccc tataaagggc cagcctgagc
961 tgcagaggat caagacagca cgtggacctc gcacagcctc tcccacaggt accatg
1 cctccgacag cctctccaca ggtaccatga aggtctccgc ggcacgcctc gctgtcatcc
61 tcattgctac tgccctctgc gctcctgcat ctgcctcccc atattcctcg gacaccacac

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121 cctgctgctt tgccctacatt gcccgccac tgccccgtgc ccacatcaag gagtatttct
181 acaccagtgg caagtgtcc aaccagcag tcgtctttgt caccgaaag aaccgccaag
241 tgtgtgccaa cccagagaag aaatgggttc gggagtacat caactcttg gagatgagct
301 aggatggaga gtccctgaac ctgaacttac acaaatttgc ctgtttctgc ttgctcttgt
361 cctagtctgg gaggttccc ctactatcc taccacccc gctccttgaa gggccagat
421 tctgaccacg acgagcagca gttacaaaaa ccttccccag gctgggactg gtggctcagc
481 cttgtaatcc cagcactttg ggaggccaag gtgggtggat cacttgaggt caggagtctg
541 agacagcctg gccaacatga tgaacccca tgtgtactaa aaatacaaaa aattagccgg
601 gcgtggtagc gggcgccgt agtcccagct actcgggagg ctgaggcagg agaattggcg
661 gaacccggga gcggagctg cagtgaaccg agatcgcgcc actgcactcc agcctgggag
721 acagagcgag actccgtctc aaaaaaaaaa aaaaaaaaaa aaaaaatata aaaattagcc
781 gcgtgggtgg ccacgcctgt aatcccagct actcgggagg ctaaggcagg aaaattgttt
841 gaacccagga ggtggaggct gcagtgaact gagattgtgc cacttcactc cagcctgggt
901 gacaaagtga gactccgtca caacaacaac aacaaaaagc tcccccaact aaagcctaga
961 agagcttctg aggcgctgct ttgtcaaaag gaagtctcta ggttctgagc tctggctttg
1021 ccttggtctt gcaagggctc tgtgacaagg aaggaagtca gcatgcctct agaggcaagg
1081 aagggaggaa cactgcactc ttaagcttcc gccgtctcaa cccctcacag gagcttactg
1141 gcaaacatga aaatcgggg

(2) INFORMATION FOR SEQ ID NO:2619:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3961 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2619

1 attaaacctc tcgccgagcc cctccgcaga ctctgcgcgc gaaagtttca tttgctgtat
61 gccatcctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctgcacagtc
121 ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg cccttggttg
181 ggcacaaggt ggcaggatgt ctgagtgtga cgaacttcag cagcttgact caaaattcct
241 ggagcaggtt caccagcttt atgatgacag ttttcccatg gaaatcagac agtacctggc
301 acagtgggta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaa gaaaggaaaat
541 tctggaaaac gccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgat
601 gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
661 tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa
721 aaccttgtag aacagagaac acgagaccaa tgggtgtggca aagagtgatc agaaacaaga
781 acagctgtta ctcaagaaga tgtatttaac gcttgacaat aagagaaagg aagtagttca
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901 actagtggag tggaaagcga gacagcagag cgctgtattt gggggggccc ccaatgcttg
961 cttggatcag ctgcagaact ggttcactat agttgcggag agtctgcagc aagttcggca
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1081 aaaaaacaaa caagtgttat gggaccgcac cttcagctct tccagcagc tcattcagag
1141 ctgctttgtg gtggaaagac agcctgtcat gccaacgcac cctcagaggc cgctggtctt
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1261 ttataatttg aaagtcaaa gcttatttga taaagatgtg aatgagagaa atacagttaa
1321 aggatattag aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
1381 caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc
1441 tggcaccaga acgaatgagg gtccctctcat cgttactgaa gagcttcaat cccttagttt
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1561 tgtggtgatc tccaacgtca gccagctccc gagcggttg gctccatcc tttggtacaa
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1681 ggctcagctt tcagaagtgc tgagttggca gttttcttct gtcacacaaa gagggtctcaa
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1801 tctcattccg tggacgaggt tttgtaagga aaatataaat gataaaaatt tccccctctg
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2101 gaagaaagaa ctttctgtct ttactttccc tgacatcatt cgcaattaca aagtcattgg
2161 tgcgtgagaat attcctgaga atccccgaa gtatctgtat ccaaatattg acaaaagacca
2221 tgccttttga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg
2281 ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag ttacccttc
2341 tagacttcag accacagaca acctgctccc catgtctcct gaggagtttg acgaggtgtc
2401 tcggatagtg ggctctgtag aattcgacag tatgatgaac acagtataga gcatgaattt
2461 tttcatctt ctctggcgac agtttctct ctcatctgtg attccctcct gctactctgt

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2521 tccttcacat cctgtgtttc tagggaaatg aaagaaaggc cagcaaattc gctgcaacct
2581 gttgatagca agtgaatttt tctctaactc agaaacatca gttactctga agggcatcat
2641 gcatcttact gaaggtaaaa ttgaaaggca ttctctgaag agtgggtttc acaagtgaaa
2701 aacatccaga tacacccaaa gtatcaggac gagaatgagg gtcctttggg aaaggagaag
2761 ttaagcaaca ctagcaaat gttatgcata aagtcagtgc ccaactgtta taggtgttg
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3241 ctcccaaggg agttaggcta ttcacaacca ctcatcaciaa agttgaaatt aaccatagat
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3361 attagggttg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa
3421 ctgacaactt gaataatata ccagagataa tatgagaatc agatcatttc aaaactcatt
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3541 gcgaatggtt ccattctctc tctgtactt tttccagaca cttttttgag tggatgatgt
3601 ttctgtgaag atactgtatt tttacttttt tcttctctta tcaactgacac aaaaagtaga
3661 ttaagagatg ggtttgacaa gggtcttccc ttttacatac tgtgtctat gtggtgtat
3721 cttgtttttc cactactgct accacaacta tattatcatg caaatgctgt attcttctt
3781 ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc
3841 attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctcctc
3901 tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga
3961 ctaaaaaaca aagaagacaa cattaanaac aatattgttt cta

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(2) INFORMATION FOR SEQ ID NO:2620:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2620

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1 attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgtgtat
61 gccactctcg agagctgtct aggttaacgt tcgcactctg tgtatataac ctgcacagtc
121 ttggcaccta acgtgctgtg cgtagctgct cctttggttg aatccccagg ccttgtgttg
181 ggcacaaggt ggcaggatgt ctcagtggta cgaacttcag cagcttgact caaaattcct
241 ggagcagggt caccagcttt atgatgacag ttttcccatg gaaatcagac agtaactggc
301 acagtgggta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaa aaaggaatat
541 tctgaaaaac gccagagat ttaatcaggc tcagtccggg aatattcaga gcacagtgt
601 gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
661 tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa
721 aaccttgtag aacagagaac acgagaccaa tgggtgtggc aagagtgtat agaacaaga
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961 cttggatcag ctgcagaact gggtcactat agttgcggag agtctgcagc aagttcggca
1021 gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac
1081 aaaaaacaaa caagtgttat gggaccgcac cttcagtctt ttccagcagc tcattcagag
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1321 aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
1381 caccaatggc agtctggcgg ctgaatttcg gcacctgcaa ttgaaagaac agaaaaatgc
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2041 atgggtggag cgggtcccga acggaggcga acctgacttc catgcggttg aaccctacac
2101 gaagaaagaa ctttctgctg ttactttccc tgacatcatt cgcaattaca aagtcatggc

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2161 tgctgagaat attcctgaga atccccctgaa gtatctgtat ccaaattattg acaaagacca
 2221 tgcccttggga aagtattact ccaggccaaa ggaagcacca gagccaatgg aacttgatgg
 2281 ccctaaagga actggatata tcaagactga gttgatttct gtgtctgaag tgtaagtga
 2341 cacagaagag tgacatgttt acaaacctca agccagcctt gctcctggct ggggcctgtt
 2401 gaagatgctt gtattttact tttccattgt aattgctatc gccatcacag ctgaacttgt
 2461 tgagatcccc gtgttactgc ctatcagcat tttactactt taaaaaaaaa aaaaaagcc
 2521 aaaaacccaa rttgtattta aggtatataa attttcccaa aactgatacc ctttgaaaaa
 2581 gtataataa aatgagcaaa agttgaa

(2) INFORMATION FOR SEQ ID NO:2621:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 61 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2621

1 ttactaagat gattattgtt ttatagcaat tgaaagaaca gaaaaatgct ggcaccagaa
 61 cgaatgaggt gagagtgggt tatgttgtga atgggcc

(2) INFORMATION FOR SEQ ID NO:2622:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 181 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2622

1 acgacctctc tgcccggtgt ggtgatctcc aacgtcagcc agctcccgag cggttgggcc
 61 tccatccttt ggtacaacat gctgggtgtg gcggaaccca ggttatggaa aacacatttg
 121 ctttggctccc agggtttaag cagagaecccc acgctctcgc tgctgcatct cgctgtgtca
 181 tctctgaaat agccccaat

(2) INFORMATION FOR SEQ ID NO:2623:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 61 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2623

1 ggtctcaatg tggaccagct gaacatgttg ggagagaagc ttcttgggtat atgcatatta
 61 acttggtatg tttataaaaa ttgaaattca taaaaatc

(2) INFORMATION FOR SEQ ID NO:2624:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 121 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2624

1 ctgatcagta gaaaacatgt ttacatcttt gttttagtg tatagagcat gaaatcaaga
 61 gcctggaaga tttacaagat gaatatgact tcaaatgcaa aaccttcag aacagaggta
 121 agggttcaca actgaagtgg tgcccggttg

(2) INFORMATION FOR SEQ ID NO:2625:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6966 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2625

1 attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat
 61 gccatcctcg agagctgtct aggttaacgt tcgactctg tgtatataac ctgcacagtc
 121 ttggcaccta acgtgctgtg cgtagctgct cctttgggtg aatccccagg cccttgttgg
 181 ggcacaaggt ggcaggatgt ctgagtgtga cgaacttcag cagcttgact caaaattcct
 241 ggagcaggtt caccagcttt atgatgcag ttttcccatg gaaatcagac agtacctggc
 301 acagtgggta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
 361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
 421 taactttctg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
 481 ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaaggaa aaaggaaaat
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 601 gttagacaaa cagaaagagc ttgacagtaa agtcagaaat gtgaaggaca aggttatgtg
 661 tatagagcat gaaatcaaga gcctggaaga tttacaagat gaatatgact tcaaatgcaa

721 aaccttgcag aacagagaac acgagaccaaa tgggtgtggca aagagtgtatc agaaacaaga
781 acagctgtta ctcaagaaga tgtatttaaat gcttgacaat aagagaaaagg aagtagttca
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1021 gcagcttaaa aagttggagg aattggaaca gaaatacacc tacgaacatg accctatcac
1081 aaaaaacaaa caagtgttat gggaccgcac cttcagtcct ttccagcagc tcttcagag
1141 ctctgtttgtg gtggaaagac agccctgcat gccaacgcac cctcagaggc cgctggtctt
1201 gaagacaggg gtccagttca ctgtgaagtt gagactgttg gtgaaattgc aagagctgaa
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1321 aggatttagg aagttcaaca ttttgggcac gcacacaaaa gtgatgaaca tggaggagtc
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3181 atatccaaag ctgaatacat tctgctttca tcttgggtcac atacaattat tttacagtt
3241 ctcccaggag agttaggcta ttcacaacca ctcattcaaa agttgaaatt aaccatagat
3301 gtagataaac tcagaaattt aattcatgtt tcttaaatgg gctactttgt cctttttgtt
3361 attagggtgg tatttagtct attagccaca aaattgggaa aggagtagaa aaagcagtaa
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3481 tccatgttaa ctgcattgag aactgcataat gtttcgctga tatatgtgtt ttacacattt
3541 gcgaatggtt ccattctctc tcctgtactt tttccagaca cttttttgag tggatgatgt
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3661 ttaagagatg ggtttgacaa ggttcttccc ttttacatac tgctgtctat gtggctgtat
3721 cttgtttttc cactactgt accacaacta tattatcatg caaatgtgt attcttcttt
3781 ggtggagata aagatttctt gagttttgtt ttaaaattaa agctaaagta tctgtattgc
3841 attaaatata atatcgacac agtgctttcc gtggcactgc atacaatctg aggcctctc
3901 tctcagtttt tatatagatg gcgagaacct aagtttcagt tgattttaca attgaaatga
3961 ctaaaaaaca aagaagacaa cattaataaac aatattgttt cta
1 attaaacctc tcgccgagcc cctccgcaga ctctgcgccg gaaagtttca tttgctgtat
61 gccatccctg agagctgtct aggttaacgt tcgactctg tgtatataac ctgcacagtc
121 ttggcaccta acgtgtctg cgtagctgt cctttggtg aatccccagg cccttgttgg
181 ggcacaaggt ggcaggatgt ctcagtgtga cgaacttcag cagcttgact caaaattcct
241 ggagcaggtt caccagcttt atgatgacag ttttccatg gaaatcagac agtacctggc
301 acagtgttga gaaaagcaag actgggagca cgtgccaat gatgtttcat ttgccaccat
361 ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttgagaa
421 taacttcttg ctacagcata acataaggaa aagcaagcgt aatcttcagg ataattttca
481 ggaagaccca atccagatgt ctatgatcat ttacagctgt ctgaagggaag aaaggaaaat
541 tctggaaaac gccagagat ttaatcaggc tcagtcgggg aatattcaga gcacagtgt
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721 aaccttgcag aacagagaac acgagaccaaa tgggtgtggca aagagtgtatc agaaacaaga

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(2) INFORMATION FOR SEQ ID NO:2626:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18601 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2626

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11341 tgatgactat gtctttgcct gtcccagagg ggcactagg tgtgacagag gaactgcaca
11401 tcatcagctt caggttcaaa tatacctacc aggttctgaa gcaggagctg aaagtgagt
11461 aaaaaggagg gcaaggagag agaaagcagc ttggaagaa ggcataagaa ggggataaac
11521 agaagcctct tggggagggt tagcactcct ttctctaac aaatacctgc agctagaaac
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11641 attatttcca acatgaacca gctctcaatt gcctgggctt cagttctctg gttcaatttg
11701 ctacagccaa accttcaggt aggggagtg ggcgacagg tcccggcgcg agagcagggg
11761 tgtggaagct tgggtgtgata ggttgcttct gagccagcct acactgctcc caccctgca
11821 gaaccagcag ttcttctcca acccccctgg ggcctctgag agcttgcctg gcctgctct
11881 cagttggcag ttctctctct atgttgccg aggcctcaac tcagaccagc tgagctagt
11941 gagaacaag ctgttcggta cagatttctt tttctctcag ccttccccca gccttagtct
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12301 aattctggag ttggtacatg accacctgaa ggtctctgga aatgatgggt aaggccttgg
12361 tcacccttcc ctcatgggct tgtgcttccg ggcttgagag tggagtctct gcaccctcac
12421 gtggcaagca gggagagaga gcaaagcacg gtgcaggcca cgtctcttca catttgtaa
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12541 gcgggaggat catgagggtca ggagatcgag accatcctgg ctaacacgggt gaaacccctg
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12721 ccgagattgc gtcactgccc tccagccttg ggttgacgta gcaagactcc gtctcaaaaa
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13381 gtgctatttg tggccaggcg tgggtgctca tgccctgtaat cctagcattt ttggggaggc
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13681 tctccctgtc tcccagaaaa aaaaaaaagt gctgttcac tgtgtgatct cactgaatct
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14461 atcgttgaca tacttcattg ctgattgca gagatctacc agacatccat agatcccat
14521 ccttccctta aagcatggga aaactgatct ctgagggaat taagggtatc gtccatggga
14581 tactgctggt tactatgggg atgagactgc caggaccatc tgcactaggg gaaaacctca
14641 ggctatatgt ctggcccaact gatcttctct gcttcttgta tatgttcctc acagttaatc
14701 tccaggaacg gaggaatac ctgaaacaca ggctcattgt ggtctcraat agagtgcagt
14761 atgaactgtt cattcatcct cctaactcct tattggctct gcttcagtga atcgtcaaaa
14821 gggggcatta ccttctcctg ggtggagcac caggatgatg gtcagctgct ctgccctgcc
14881 attcccacag cctctccttt ctgccttctc ctaagctgcc cctattccag tctcccagc
14941 ctccctccc tcttagcccc actctagttt tttctgggtc tagtctctcc tatctcatat
15001 ttttctgctg ccatccttag gttgtctcca cagggttttc tggataataa tgatcataat
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15121 ggttttggtc tgtcgccag gctggagtgc agtgggtgta tccctggctca ctgcagctc
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16141 aagtgcaggg attacaggcg tgagcctctg caccggcct aacttttgta ttttttagtag
16201 aaacagggtt tcacctgtt gccaggctg gtcagtgcct cctggcctca agtgatctgc
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16321 ttatgcgcca ggcactaggc aaatggtttg catttatttt ctcatcttat tgaatctaca
16381 aaatagctct gtgaagttaa cactgttact gttttcagct aaggaaactg atttagagta
16441 gtcaagtttt gtacctagg tacgtggcta atgatacagg tctgttagat tccgtagccc
16501 tgatttttaac caccctactg cctctcaaga attactagg attgttctca tttatagatg
16561 ataaatctga ggctcagaaa agttaggcca cttgcctaag gtccccagc caggattcaa
16621 actccaggag gcctgattcc aaacctatgc tcttttagccc tccgcctac tgccttctta
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16741 tgtctgtct ttgggtatcc aggcagggtg atgaactgca acaaccgtg gagcttaagc
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16861 gcctggactt agagccactg ctgaaggcag ggctggatct ggggccagag ctgagatctg
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16981 tgccagagcc agaccaagga cctgtatcac agccagtgc agagccagat ttgcccgtg
17041 atctgagaca tttgaacact gagccaatgg aaagtaagt atgagatgga gtggcacaca
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17161 attggagaga ggtccatctg tgattccttt ttttagaat tacacatgcc tccccacc
17221 tccctgctct ttcacccac aagttccac tcaggctctt cccaggcctt tctcccatc
17281 ctccctcctt tgggctgctg ggttgggaac tctaactaa gatcggggcc tcaactttct
17341 ctctggatta cctagtcttc agaaactgtg taaagattga agaaatcatg ccgaatgggtg

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17401 acccactgtt ggctggccag aacaccgtgg atgagggttta cgtctcccgc cccagccact
17461 tctacactga tggacccttg atgccttctg acttctagga accacatttc ctctgttctt
17521 ttcatacttc tttgcccttc ctactcctca tagcatgata ttgttctcca aggatgggaa
17581 tcaggcatgt gtcccttcca agctgtgtta actgttcaaa ctcaggcctg tgtgactcca
17641 ttgggggtgag aggtgaaagc ataacatggg tacagagggg acaacaatga atcagaacag
17701 atgctgagcc ataggtctaa ataggatcct ggaggctgcc tgctgtgctg ggaggtatag
17761 gggtcctggg ggcaggccag ggcagttgac aggtacttgg agggctcagg gcagtggctt
17821 ctttccagta tggaggatt tcaacatttt aatagttggt taggctaaac tgggtcatac
17881 tggcattggc cttggtgggg agcacagaca caggatagga ctccatttct tcttccatt
17941 cttcatgtc taggataact tgctttcttc tttcctttac tctggctca agccctgaat
18001 ttcttctttt cctgcagggg ttgagagctt tctgccttag cctaccatgt gaaactctac
18061 cctgaagaaa gggatggata ggaagtagac ctctttttct taccagcttc ctcccctact
18121 ctgccccta agctggctgt acctgttct ccccataaaa atgatcctg caatctaag
18181 ttagtgtaa gtttgcaaac tagtttatgc taccagtct ccactttct caatcttagg
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18301 agagggcttc actctgttgc ccaggctaga gtgcaatgg gcaatcacag ctactgcag
18361 cctcaacctc ctgggttcaa gcaatcctcc tacctcagcc tctgggtag ctgaccat
18421 ggcacgcca ccatgcccta ttttttttt ttaaagacag ggtcttgcta tattgccag
18481 gctggtcttg aactgggctc aagtgtcct cacgccttg ctcccaaagt gctgggatta
18541 taggcatgag ccactgtgct tggccaggat ttttttttt tttttttga gatggagttt
18601 ctctctgtt gtccaggctg gagtgcattg gtgtgatccg gggaattc

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(2) INFORMATION FOR SEQ ID NO:2627:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2761 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2627

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1  cagctggaat tcggggcgcc ggcgcagact gggaggggga gccgggggtt ccgacgtcgc
61  agccgagggg acaagcccca accggtacct ggacaggcac cccggtttgg cgtgtgtctt
121  cccctcggc tcggagaggg ccttcggcct gaggagacct cgccggccgt ccccggcaca
181  cgccagccc cggcctctcg gcctctgccg gagaacagg atggcccaat ggaatcagct
241  acagcagctt gacacacggt acctggagca gctccatcag ctctacagtg acagcttccc
301  aatggagctg cggcagtttc tggcccttgg gattgagagt caagattggg catatgccc
361  cagcaaagaa tcacatgcca ctttgggtgt tcataatctc ctgggagaga ttgaccagca
421  gtatagccgc ttctgcaag agtcgaatgt tctctatcag cacaatctac gaagaatcaa
481  gcagtttctt cagagcaggt atcttgagaa gccaatggag attgcccgga ttgtggccc
541  gtgcctgtgg gaagaatcac gccttctaca gactgcagcc actgcggccc agcaaggggg
601  ccaggccaac caccacacag cagcgtggt gacggagaag cagcagatgc tggagcagca
661  cttcagggat gtccggaaga gagtgcagga tctagaacag aaaatgaaag tggtagagaa
721  tctccaggat gactttgatt tcaactataa aaccctcaag agtcaaggag acatgcaaga
781  tctgaatgga aacaaccagt cagtaccag gcagaagatg cagcagctgg aacagatgct
841  cactgcgctg gaccagatgc ggagaagcat cgtgagttag ctggcggggc tttgtcagc
901  gatggagtac gtgcagaaaa ctctcacgga cgaggagctg gctgactgga agaggcgga
961  acagattgcc tgcattggag gcccgcccaa catctgccta gatcggctag aaaactggat
1021  aacgtcatta gcagaatctc aacttcagac ccgtcaacaa attaagaaac tggaggagtt
1081  gcacaaaaaa gtttctctaca aaggggacct cattgtacag caccggccga tgcgtggagg
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1261  taaagtcagg ttgctggtca agttccctga gttgaattat cagcttaaaa ttaaagtgtg
1321  cattgacaaa gactctgggg acgttcgagc tctcagagga tcccggaat ttaacattct
1381  gggcacaaac acaaaagtga tgaacatgga agaattcaac aacggcagcc tctctgcaga
1441  attcaaacac ttgaccctga gggagcagag atgtgggaat gggggccgag ccaattgtga
1501  tgcttccctg attgtgactg aggagctgca cctgatcacc tttgagaccg aggtgtatca
1561  ccaaggtctc aagattgacc tagagacca ctccttgtca gttgtggtga tctccaacat
1621  ctgtcagatg ccaaatgcct gggcgctccat cctgtggtac aacatgctga ccaacaatcc
1681  caagaatgtg aacttcttca ctaagccgcc aattggaacc tgggaccaag tggccgaggt
1741  gctcagctgg cagttctcgt ccaccaccaa gcgggggctg agcatcgagc agctgacaac
1801  gctggctgag aagctcctag ggcctggtgt gaactactca ggggtgcaga tcacatgggc
1861  taacttctgc aaagaaaaca tggtggcaa gggcttctcc tactgggtct ggctagacaa
1921  tatcatcgac cttgtgaaaa agtatatctt ggccctttgg aatgaagggt acatcatggg
1981  tttcatcagc aaggagcggg agcgggccat cttgagcact aagccccag gcaccttctt
2041  gctgcgcttc agtgaaagca gcaaaagaag aggcgtcact ttcacttggg tggagaagga
2101  catcagcggg aagaccagca tccagtcctg ggaaccatac acaaagcagc agctgaacaa
2161  catgtcattt gctgaaatca tcatgggcta taagatcatg gatgtacca atatcctgtt
2221  gtctccactt gtctatctct atcctgacat tcccaaggag gaggcattcg ggaagtattg
2281  tcggccagag agccaggagc atcctgaagc tgaccaggt agcgtcgccc catacctgaa
2341  gaccaagttt atctgtgtga caccaacgac ctgcagcaat accattgacc tgccgatgtc

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2401 cccccgcgct ttagattcat tgatgcagtt tggaaataat ggtgaagggtg ctgaaccctc
 2461 agcaggaggg cagtttgagt ccctcacctt tgacatggag ttgacctcgg agtgcgctac
 2521 ctcccccatg tgaggagctg agaacggaag ctgcagaaag atacgactga ggcgccctacc
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 2641 gttccagatt ttttttaate tcctacttct gctatctttg agcaatctgg gcacttttaa
 2701 aaatagagaa atgagtgaat gtgggtgatc tgcttttate taaatgcaaa taaggatgtg
 2761 ttctctgaga cccatgatca ggggatg

(2) INFORMATION FOR SEQ ID NO:2628:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 181 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2628

1 cgacagcgac cagatcaagg aggaactgcc ggagcccttt gagcatcttc tgcagagaat
 61 cgcccgagga cccaagcctc agcagttctt tggattaatg ggcaaacggg atgctggaca
 121 tggccagatc tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaag
 181 agcttttaaat tctgtggctt atgaaaggag tgcaatgca

(2) INFORMATION FOR SEQ ID NO:2629:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1021 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2629

1 gagagtgcgg agcgaccacg tgcgctcgga ggaaccagag aaactcagca ccccgcgggga
 61 ctgtccgtcg caaaatccaa catgaaaatc ctctggcctt tggcagtctt ttttcttgtc
 121 tccactcagc tgtttgagga agaaatagga gccaatgatg atctgaatta ctgggtccgac
 181 tggtagcaga gcgaccagat caaggaggaa ctgccggagc cctttgagca tcttctgcag
 241 agaactcgcc ggagacccaa gcctcagcag ttctttggat taatgggcaa acgggatgct
 301 gattccctcaa ttgaaaaaca agtggccctg ttaaaggctc tttatggaca tggccagatc
 361 tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaag agcttttaaat
 421 tctgtggctt atgaaaggag tgcaatgcag aattatgaaa gaagacgtta ataaactacc
 481 taacattatt tattcagctt catttgtgtc aatgggcaat gacaggtaaa ttaagacatg
 541 cactatgagg aataattatt tattaataaa caattgttta gggttgaaaa ttcaaaaagt
 601 gtttattttt catattgtgc caatatgtat tgtaaacatg tgttttaatt ccaatatgat
 661 gactccctta aaatagaaat aagtggttat ttctcaacaa agcacagtgt taaatgaaat
 721 tgtaaaacct gtcaatgata cagtgcctaa agaaaaaaa tcattgcttt gaagcagttg
 781 tgtcagctac tgcggaaaag gaaggaaact cctgacagtc ttgtgctttt cctatttgtt
 841 ttcattgtga aaatgtactg agatttttgt attacactgt attgtatct ctgaagcatg
 901 tttcatgttt tgtgactata tagagatgtt tttaaaagt tcaatgtgat tctaattgtc
 961 tcatttcatt gtatgatgtg ttgtgatagc taacatttta aataaaagaa aaaatatctt
 1021 g

(2) INFORMATION FOR SEQ ID NO:2630:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2581 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2630

1 ggcgcgcaag gcaactgagca ggcgaaagag cgcgctcgga cctccttccc ggccggcagct
 61 accgagagtg cggagcgacc agcgtgcgct cggaggaacc agagaaactc agcaccctgc
 121 gggactgtcc gtcgcaaaat ccaacatgaa aatcctcgtg gccttggcag tcttttttct
 181 tgtctccact cagctgtttg cagaagaaat aggagccaat gatgatctga attactggct
 241 cgaactgtac gacagcgacc agatcaagga ggaactgccg gagccctttg agcatcttct
 301 gcagagaatc gcccgagac ccaagcctca gcagttcttt ggattaatgg gcaaacggga
 361 tgctgattcc tcaattgaaa aacaagtggc cctgttaaaag gctctttatg gacatggcca
 421 gatctctcac aaaagacata aaacagattc ctttgttgga ctaatgggca aaagagcttt
 481 aaattctgtg gcttatgaaa ggagtgcatt gcagaattat gaaagaagac gtaataaac
 541 tacctaacat tatttattca gcttcatttg tgtcaatggg caatgcacag taaattaaga
 601 catgcactat gaggaataat tatttattta ataacaattg tttggggttg aaaattcaaa
 661 aagtgtttat ttttcatatt gtgccaatat gtattgtaaa catgtgtttt aattccaata
 721 tgatgactcc cttaaaatag aaataagtgg ttatttctca acaaagcaca gtgttaaatg
 781 aaattgtaaa acctgtcaat gatacagctc ctaaagaaaa aaaatcattg ctttgaagca
 841 gttgtgtcag ctactgcgga aaaggaagga aactcctgac agtcttgtgc ttttcttatt
 901 tgttttctat gtgaaaatgt actgagattt tggatttaca ctgtatttgt atctctgaag
 961 catgtttcat gttttgtgac tatatagaga tgtttttaa agtttcaatg tgattcfaat

1021 gtcttcattt cattgtatga tgtgttgta tagctaacaat tttaaataaa agaaaaaata
1081 tcttgaaaaa aaaaaaaaaa aa

(2) INFORMATION FOR SEQ ID NO:2631:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2283 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2631

1 cgacagcgac cagatcaagg aggaactgcc ggagcccttt gagcatcttc tgcagagaat
61 cgcccggaga cccaagcctc agcagttcct tggattaatg ggcaaacggg atgctggaca
121 tggccagatc tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaag
181 agctttaaat tctgtggctt atgaaaggag tgcaatgca
1 gagagtgcgg agcgaccacg tgcgctcgga ggaaccagag aaactcagca ccccgcggga
61 ctgtccgctg caaaatccaa catgaaaatc ctgctggcct tggcagtcct tttcttgtc
121 tccactcagc tgtttgcaga agaaatagga gccaatgatg atctgaatta ctggtccgac
181 tggtagcaga gcgaccagat caaggaggaa ctgccggagc ctttgagca tcttctgcag
241 agaatcgccc ggagaccaa gcctcagcag ttctttggat taatgggcaa acgggatgct
301 gattcctcaa ttgaaaaaca agtggccctg ttaaaggctc tttatggaca tggccagatc
361 tctcacaaaa gacataaaac agattccttt gttggactaa tgggcaaaag agctttaaat
421 tctgtggctt atgaaaggag tgcaatgcag aattatgaaa gaagacgta ataaactacc
481 taacattatt tattcagctt catttgtgtc aatgggcaat gacaggtaaa ttaagacatg
541 cactatgagg aataattatt ttttaataa caattgttta ggggtgaaaa ttcaaaaagt
601 gtttattttt catattgtgc caatatgtat tgtaaacatg tgttttaatt ccaatatgat
661 gactccctta aaatagaaat aagtgttat ttctcaacaa agcacagtgt taaatgaaat
721 tgtaaaacct gtcaatgata cagtccttaa agaaaaaaa tcattgcttt gaagcagttg
781 tgtcagctac tgcggaaaag gaaggaaact cctgacagtc ttgtgctttt cctatttgtt
841 ttcattggtg aaatgtactg agattttgtt attacactgt atttgatct ctgaagcatg
901 tttcatgttt tgtgactata tagagatgtt tttaaaagt tcaatgtgat tctaatgtct
961 tcatttcatt gtatgatgtg ttgtgatagc taacatttta aataaaagaa aaaaatatct
1021 g
1 gcgcccgaag gcactgagca ggcgaaagag cgcgctcgga cctccttccc ggcggcagct
61 accgagagtg cggagcgacc agcgtgcgct cggaggaacc agagaaactc agcacccegc
121 gggactgtcc gtcgcaaaat ccaacatgaa aatcctcgtg gccttggcag tctttttct
181 tgtctccact cagctgtttg cagaagaaat aggagccaat gatgatctga attactggtc
241 cgactggtac gacagcgacc agatcaagga ggaactgccg gagccctttg agcatcttct
301 gcagagaatc gcccggagac ccaagcctca gcagttcctt ggattaatgg gcaaacggga
361 tgctgattcc tcaattgaaa aacaagtggc cctgttaaag gctctttatg gacatggcca
421 gatctctcac aaaagacata aaacagattc ctttgttga ctaatgggca aaagagcttt
481 aaattctgtg gcttatgaaa ggagtgcaat gcagaattat gaaagaagac gttaataaac
541 tacctaactat tatttattca gcttcatttg tgtcaatggg caatgacagg taaattaaga
601 catgcactat gaggaataat ttttattta ataacaattg tttggggttg aaaattcaaa
661 aagtgtttat ttttcatatt gtgccaatat gtattgtaaa catgtgtttt aattccaata
721 tgatgactcc cttaaaatag aaataagtgg ttatttctca acaaagcaca gtgttaaatg
781 aaattgtaaa acctgtcaat gatacagtc ctaaagaaaa aaatcattg ctttgaagca
841 gttgtgtcag ctactgcgga aaaggagga aactcctgac agtcttgtgc ttttctatt
901 tgttttcatg gtgaaaatgt actgagattt tggattaca ctgtattgt atctctgaag
961 catgttctat gttttgtgac tatatagaga tgtttttaa agtttcaatg tgattcta
1021 gtcttcattt cattgtatga tgtgttgta tagctaacaat tttaaataaa agaaaaaata
1081 tcttgaaaaa aaaaaaaaaa aa

(2) INFORMATION FOR SEQ ID NO:2632:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1621 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2632

1 gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga
61 caggactctg ctgcagaggg gggttgtgta cagatagtag ggctttaccg ctagcttcg
121 aaatggataa cgtcctccc gtaggactcag acctctcccc aaacatctcc actaacacct
181 cggaacccaa tcagttcgtg caaccagcct ggcaaatgtt cctttgggca gctgcctaca
241 cggtcattgt ggtgacctct gtggtgggca acgtggtagt gatgtggatc atcttagccc
301 acaaaaagaat gaggacagtg acgaactatt ttctggtgaa cctggccttc gcggaggcct
361 ccatggctgc attcaataga gtggtgaact tcacctatgc tgtccacaac gaatgggtact
421 acggcctgtt ctactgcaag ttccacaact tcttccccat cgccgctgtc ttcgccagta
481 tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat cccctccagc

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541 cccggctgtc agccacagcc accaaagtgg tcactgtgt catctgggtc ctggctctcc
601 tgctggcctt cccccagggc tactactcaa ccacagagac catgcccagc agagtctgtg
661 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg
721 tgactgtgtc gatctacttc ctccccctgc tgggtgattg ctatgcatac accgtagtgg
781 gaatcacact atgggccagt gagatccccg gggactcctc tgaccgctac cacgagcaag
841 tctctgccaa gcgcaagggt gtcaaaatga tgattgtcgt ggtgtgcacc ttcgccatct
901 gctggctgccc ctccacatc ttcttctctc tgccctacat caaccagat ctctacctga
961 agaagtttat ccagcaggtc tacctggcca tcagtgggt ggccatgagc tccaccatgt
1021 acaaccccat catctactgc tgctcaatg acaggttccg tctgggcttc aagcatgcct
1081 tccgggtgtg ccccttcatc agcgccggcg actatgaggg gctggaaatg aaatccaccc
1141 ggtatctcca gaccagggc agtggtgaca aagtcagccg cctggagacc accatctcca
1201 cagtgggtgg gggccacgag gaggagccc aggacggccc caaggccaca ccctcgtccc
1261 tggacctgac ctccaactgc tcttcacgaa gtgactcaa gaccatgaca gagagcttca
1321 gcttctctc caatgtgtc tctaggcca cagggccttt ggcaggtgca gccccactg
1381 cctttgacct gcctcccttc atgcatggaa attcccttca tctggaacca tcagaaacac
1441 cctcacactg ggacttgcaa aaagggtcag tatgggttag gaaaaacatt ccatccttga
1501 gtcaaaaaat ctcaattctt ccctatcttt gccaccctca tgctgtgtga ctcaaaccaa
1561 atcactgaac tttgctgagc ctgtaaaata aaaggtcgga ccagcttttc caaaagccc
1621 attcattcca ttctggaagt gactttggct gcatgcgagt gctcatttca ggat

```

(2) INFORMATION FOR SEQ ID NO:2633:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2633

```

1 aattcagagc caccgctggc aggcggcgag tgcattcaga agcgtttata ttctgagcgc
61 cagttcagct ttcaaaaaga gtgctgcca taaaaagcct tccaccctcc tgtctgcttt
121 agaaggaccc tgagccccag gcgccagcca caggactctg ctgcagaggg gggttgtgta
181 cagatagtag gctttacgcc tagcttcgaa atggataacg tcctcccggt ggactcagac
241 ctctcccaaa acatctccac taacacctcg gaaccacac agttcgtgca accagcctgg
301 caaattgtcc tttgggcagc tgccacacg gtcattgtgg tgacctctgt ggtgggcaac
361 gtggtagtga tgtggatcat cttagcccac aaaagaatga ggacagtgac gaactatttt
421 ctgggtgaac tggccttcgc ggaggcctcc atggctgcat tcaatacagt ggtgaacttc
481 acctatgtc tccacaacga atgggtactac ggcctgttct actgcaagtt ccacaacttc
541 tttcccatcg cgtgtgtct cgccagtatc tactccatga cggctgtggc ctttgatagg
601 tacatggcca tcatacatcc cctccagccc cggctgtcag ccacagccac caaagtgttc
661 atctgtgtca tctgggtcct ggctctcctg ctggccttcc ccaggggcta ctactcaacc
721 acagagacca tgcccagcag agtcgtgtgc atgatcgaat ggccagagca tccgaacaag
781 atttatgaga aagtgtacca catctgtgtg actgtgtgta tctacttctc cccctgctg
841 gtgattggct atgcatacac cgtagtggga atcacactat gggccagtag gatccccggg
901 gactcctctg accgctacca cgagcaagtc tctgccaaag gcaagggtgt caaaatgatg
961 attgtcgtgg tgtgcacct cgccatctgc tgggtgccct tccacatctt ctctcctctg
1021 ccctacatca acccagatct ctacctgaag aagtttatcc agcaggtcta cctggccatc
1081 atgtggctgg ccatgagctc caccatgtac aaccccatca tctactgctg cctcaatgac
1141 aggttccgct tgggcttcaa gcatgccttc cgggtgtgct ccttcatcag cgccggcgac
1201 tatgaggggc tggaaatgaa atccaccggg tatctccaga cccagggcag tgtgtacaaa
1261 gtcagccgcc tggagaccac catctccaca gtgggtgggg ccacagagga ggagccagag
1321 gacggcccca aggccacacc ctgctcctg gacctgacct ccaactgtct ttcacgaagt
1381 gactccaaga ccatgacaga gagcttcagc ttctcctcca atgtgtctc ctaggccaca
1441 gggcctttgg caggtgcagc ccccactgcc tttgacctgc ctcccttcat gcatggaat
1501 tcccttcatc tggaaaccatc agaaacaccc tcacactggg acttgcaaaa agggtcagta
1561 tgggttaggg aaaaatttcc atccttgagt caaaaaatc caattcttcc ctatctttgc
1621 caccctcatg ctgtgtgact caaaccaaa cactgaactt tgctgagcct gtaaaataaa
1681 aggtcggacc agcttttct caagagccca atgcattcca tttctggaag tgactttggc
1741 tgcattcgag tgcatttcc aggatg

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(2) INFORMATION FOR SEQ ID NO:2634:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2634

```

1 gaaaaagcct tccaccctcc tgtctggctt tagaaggacc ctgagcccca ggcgccacga
61 caggactctg ctgcagaggg gggttgtgta cagatagtag ggctttaccg cctagcttgc
121 aaatggataa cgtcctcccg gtggactcag acctctcccc aaacatctcc actaacacct
181 cggaacccaa tcagtctgtg caaccagcct ggcaaaattgt cctttgggca gctgcctaca

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241 cggtcattgt ggtgacctct gtgggtgggca acgtggtagt gatgtggatc atcttagccc
301 acaaaagaat gaggacagt acgaactatt ttctggtgaa cctggccttc gcggaggcct
361 ccattggctgc attcaataca gtgggtgaact tcacctatgc tgtccacaac gaatggtagt
421 acggcctgtt ctactgcaag ttccacaact tcttccccat cggcgtctgc ttcgccaagta
481 tctactccat gacggctgtg gcctttgata ggtacatggc catcatacat cccctccagc
541 cccggctgtc agccacagcc accaaagtgg tcatctgtgt catctgggtc ctggctctcc
601 tgctggcctt ccccgaggc tactactcaa ccacagagac catgccagc agagtctgtg
661 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtac cacatctgtg
721 tgactgtgct gatctacttc ctccccctgc tgggtgattg ctatgcatac accgtagtgg
781 gaatcacact atgggccaat gagatccccg gggactcctc tgaccgctac cacagcaag
841 tctctgccaa gcgcaaggtg gtcaaaatga tgattgtcgt ggtgtgacc ttcgccatct
901 gctggctgcc ctccacatc ttcttctctc tgccctacat caaccagat ctctacctga
961 agaagtttat ccagcagtc tacttgcca tcatgtggct ggccatgagc tccaccatgt
1021 acaaccccat catctactgc tgcctcaatg acaggtgagg atcccaaccc catgactctt
1081 ccaggggcca caagaccatc tacatacaca gtggccaagc ggcatcctaa atgagtaaac
1141 ccagctgtga gacaagagg acaagtggg actgcagcta acttatcatc acacaactca
1201 gcctggctga ttatcaccat ccaggaatgg gagcccgag tagactgatt ttctttttt
1261 cttttcca

```

(2) INFORMATION FOR SEQ ID NO:2635:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2635

```

1 atgctgagaa aggtagctgc caaaccttga ctgcaataac aataacaaaa attaaaaacc
61 taaaataata agtatatcat actgaccttt cctgtttacc ttgctgtagg taccacatct
121 gtgtgactgt gctgatctac ttcttcccc tgetggtgat tggctatgca tacaccgtag
181 tgggaatcac actatgggcc agtgagatcc cgggggactc ctctgaccgc taccacgagc
241 aagtctctgc caagcgcaag gtgagcaggg gacaggcaga actaaccac cctggcacag
301 acaacaggct gtcgagaagg gatggcacac ttgtgagccc cagaggcagc tagcacaaaa
361 tatccccagg tat

```

(2) INFORMATION FOR SEQ ID NO:2636:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2636

```

1 ggtaccaatt ttgcccggc ataagtgtat agtaaatttc ccagccttaa agcacttccc
61 gagagatgct ttgagcgtc gcggtaccag tgcgtaaacg ccgctccccg gctggcgagg
121 gtgtgcgcca actccaacct gcgcgcaagt ctgccggtgc gcgctccagt cccacagctc
181 cgagtccccg cagtgaagg agggggcggt gcaccggggt agatggggcc ctgaggactc
241 ccgggggttca gttttccgag gctgccaaga ggccaagt ttggacagtgagggtcctga
301 agcagatcag caacaaccgc aagtgtccca gccccaggtc ctgagacagc gaggaaaacg
361 acaagaggcg gacacacaac gctcttgaac gtcagaggag gaacgagctg aagcgagct
421 tttttgacct gcgtgaccag atccctgaat tggaaaacaa cgaaaaggcc cccaaggtag
481 tgatcctcaa aaaagccacc gcctacatcc tgtccattca agcagacgag cacaagctca
541 cctctgaaaa ggacttattg aggaaacgac gagaacagtt gaaacacaaa ctgaaacagc
601 ttcgaaactc tgggtgcataa actgacctaa ctcgaggagg agctggaatc tctcgtgaga
661 gtaaggagaa cggttccttc tgacagaact gatgcgtgga aattaaaatg catgctcaaa
721 gcctaacctc acaaccttgg ctggggcttt gggactgtaa gcttagagac tgtcacttcc
781 cagggtgaatc agctagccag gtaactgagc tagatatatt gtgggggtgt ttcttaaaaca
841 cagcctcagg aaagttgttt tcgggacacc tggaccaggg agtcgtcgcc tctggttctt
901 cggtagctgg agcgcggccc ggagcgcggc gctggcacat cggccccaca catgaccgtt
961 tccatttgcc acaggcaagc cgcctctgca gagctgtctc agggctctgg gcttcattcc
1021 ctggaagtgt attgtcctcc actccagctg ttcccaaat ccttccctcc tcccagcacc
1081 cctcgtgcaa cgacgattcc agctgcggac cgcactgtgt tcagttactt ccaagccacc
1141 tactgcccc tcgcgagtg ctgggggctc ccgactcgca gactccacg caagtgagca
1201 agcagcaaaa ggcgtggtag ctgcggcggt ggaatgagac agttgtcaac agctggcgca
1261 cgtgccgccc tgcgcaccgg gactggcgag tacgcagccc aggtactgcc cttcccagt
1321 gacgtctctg cagggggtta taaaagctc gtgcgcagct aactcgcgag ctgagcaacc
1381 cgaaccgaga ggtgcccgcg aaactcgagg cggcggcagc ggcagcaaaa gagaaggaaa
1441 aatctccagc tggatacgaa gctccagaat cctggccata ggctcagaac ttttacaggt
1501 cgcgtgcaa tgggccccca ctctgctctc aagtcctcac gcagcacagg gctttgcctt
1561 tccctgcgga ggaaggagaa ataggagtgt caggcagcag caggtgcata aatgcggggg
1621 atctcttctg tctagaact gtgaccgtgt gaatttcttt cctttttca gtttaccgca

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1681 agagagatgc tgtctccaga cttctgaact caaacgtctc ctgaagcttg aaagtggagg
1741 aattcagagc caccgcgggc aggcgggcag tgcattccaga agcgtttata ttctgagcgc
1801 cagttcagct ttcaaaaaga gtgctgcccc gaaaaagcct tccaccctcc tgtctggcctt
1861 tagaaggacc ctgagcccca ggcgccagcc acaggactct gctgcagagg ggggttggtt
1921 acagatagta gggctttacc gcctagcttc gaaatggata acgtcctccc ggtggactca
1981 gacctctccc caaacatctc cactaacacc tcggaaccca atcagttcgt gcaaccagcc
2041 tggcaaatgg tcctttgggc agctgcctac acggtcattg tggtgacctc tgtggtgggc
2101 aacgtggtag tgatgtggat catcttagcc caaaaagaa tgaggacagt gacgaactat
2161 tttctggtga acctggcctt cgcggaggcc tccatggctg cattcaatac agtggtgaaac
2221 ttcacctatg ctgtccacaa cgaatggtac tacggcctgt tctactgcaa gttccacaac
2281 ttcttcccca tcgccgctgt cttcgccagt atctactcca tgacggctgt ggcctttgat
2341 aggtgagatt agcctttgtg aaaaggcgag aaagtgtctc tagaggacca tggcattgct
2401 gtgaggtttg gaactgggtg gggtaggggt caagtggaag attggccact ctgagggttt
2461 ttttactgat ca

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(2) INFORMATION FOR SEQ ID NO:2637:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2637

```

1 agaataatgga aaaggaattg gaaaataatt gtacaaatca tcaggaatca aagggtttct
61 atgaattttc ttattggcag gaaaaatatg gaattctctg tacagatttt ggtgaccaga
121 tcagaacttt gttctttctt ctctgttcca ggtacatggc catcatacat cccctccagc
181 cccggctgtc agccacagcc accaaagtgg tcactctgtg catctgggtc ctggctctcc
241 tgctggcctt cccccagggc tactactcaa ccacagagac catgccagc agagtcgtgt
301 gcatgatcga atggccagag catccgaaca agatttatga gaaagtgtga gtagagatga
361 ctccccatgc caaagaaacg atggtgcagg ctgccttctt ggccccctct tgcctttctt
421 ttctttccat attcttttgt tggtagagat ttaatgtgta tctgcaagca tttctcacat
481 atacctcat atcaggttga tatgtccaca gttgtcaggg gactatagta tcccaaatc
541 tattctgagc attgaaagat aatttttgaa gtgtaagatc tagatcctgt tata

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(2) INFORMATION FOR SEQ ID NO:2638:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: - base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2638

```

1 gagggggatg tgctgggtgt ctcacctgtc tcacctctt gccaggtggt caaaatgatg
61 attgtcgtgg tgtgcacctt cgccatctgc tggctgccct tccacatctt ctctctctg
121 ccctacatca acccagatct ctacctgaag aagtttatcc agcaggtcta cctggccatc
181 atgtggctgg ccatgagctc caccatgtac aaccccatca tctactgtcg cctcaatgac
241 aggtgaggat cccaaccca tgagctctcc agggggccaca agaccatcta catacacagt
301 ggccaagcgg catctaaatg agtaaccca gctgtgagac aagagggaca agtggggagt
361 gcagctaact t

```

(2) INFORMATION FOR SEQ ID NO:2639:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2639

```

1 ccgtcccaaa ggtcacctct tcatctgtc gctctccagg ttccgtctgg gcttcaagca
61 tgccttccgg tgctgccctt tcatcagcgc cggcgactat gaggggctgg aaatgaaatc
121 caccgggtat ctccagaccc agggcagtggt gtacaaagtc agccgcttgg agaccaccat
181 ctccacagtg gtgggggccc acgaggagga gccagaggac ggccccaagg ccacaccctc
241 gtccctggac ctgacctcca actgctcttc acgaagtgtc tccaagacca tgacagagag
301 cttcagcttc tctccaatg tgctctccta ggccacaggg cctttggcag gtgcagcccc
361 cactgccttt gacctgcctc ccttcattga tggaaattcc cttcatctgg aaccatcaga
421 aacaccctca cactgggact tgcaaaaagg gtcagtagtg gttagggaaa acattccatc
481 cttgagtcaa aaaatctcaa ttcttcccta tctttgccac cctcatgctg tgtgactcaa
541 accaaatcac tgaactttgc tgagcctgta aaataaaaagg tcggaccagg ttttcccaaa
601 agccatttca ttccattctg gaagtgactt tggctgcatg cgagtgtctc tttcaggatg
661 aattctgcag cacagctgcg gacccggaag actcattttc ctggagcccc gtgttacttc
721 aataaagtta tctcagatta gcctcttgca gctggagggt cctatcacc cagcctacgc
781 ttgacagggt gaacaaaaga aggcaccaca taacatctaa atgaaaaatt tagccctgtc
841 ttctaagcat ctgtgaaaag aaacatatgt attccccctt ttggcatctc agtatttcat

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901 tacatttata catcatgaga ttgagaacct cgggcttcca cattatgtcc ccggtgactg
961 tcctgagcag ccgacgcaag cagaatatgt ccactgatac ctgctagtcc tcttacagac
1021 cagggaattgg gagacttgca ctacatttaa tgtgtagttg accctctttt cctacttgta
1081 aacaagggga ctgaactaga taatctaagt gttccttcga atcttaacat cccgtggttc
1141 aaggattgta tgagtttttt gtttgtttta caaaaaaaa caaacgaa aataaaagaa
1201 tagaaaagaa taggagcagt gagtcttgta actaatccc agttcctgga gatgtagcaa
1261 ctgctaaggc catctgtaac tatccatctc agacattctc cgatttatct taaaatcctg
1321 agtacattcc ttctcatgga aggttttggc ttttgacaga gcagaggact tcatgccaa
1381 gcctgcatcc atccagcttt agcaggcaga atttcatagc tgcagaacac tgcagagaa
1441 gacaaatgtg ggctccctgc ttttaacctt tgggtatttt aggggtgggg ccctaacctt
1501 cattcttagt ttacactag catctgtctc atatgtgcga caagcaagaa ggctgcactt
1561 tgcagctgca cttctgggaa gagggcatct tgcacttccc cttcagactc tctgaatgtc
1621 tcctccctgc tccatggctt tgcagcttcc ctgtctctaa ggggtagaa gactcatcaa
1681 cccataaggga cagtcagctt tcccaaggcc atgaactgaa tgctttatat cctaaattag
1741 atttagagtt tccagaaggt gagcatgcag ttttgttttg tttttttt tgtctccaa
1801 atctgtgttt ttccagata tggctggaag cagaagcttc atgtaacac catgaatgtc
1861 ctctgtgtag ttgcataat ggatgcacat gtccgcgcat cataacatta aggggagaat
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(2) INFORMATION FOR SEQ ID NO:2640:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 2581 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2640

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3301 ctctgtcctc tgtctcttct ctagggtgctc taaacatcct ataggatgct aaatgggatg
3361 gtactagaaa ccctaataac ttgcatagct agaaggatgg aatcaatgtt cagtaaaactc
3421 ttgactctgt gatgaaatgg gttgggaaga tgtgggaaca gttcccaggt tgagatctgg
3481 gaaggagggt gggattatgc gaaatcacag tgatgttgcc tatgaataaa gctgtgtcag
3541 gatgcagaca caacagagtt ataagcaciaa gggagttttc gtaggacagg aggttggggg
3601 gaataacatc tgagaaagac aaaggggaaa gaaagcagaa gtactcaggg acagccttca
3661 gaccaccatg ccaatctgac acctgggaaa aaaggggtgg ttaggaagag cctcagactg
3721 tgggtcagct ccagcccaa cactgtcaaa gattgccag agagacattg cacttaaca
3781 gaatggccag gcctgatgcc ctgcccgtgc cagccgctgg ctgggctct ctagggaaa
3841 tgttctgtgt ttgaacacca tgggtgatgc tgaagccctg cagctggagg ctgtcagcca
3901 agtgccctgc agttcttctt aaagaggga

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2641

```
1  ggggtctcaag gaatctttat tctgcgtctt cattctgaac tggatggaac cttcctgagc
61  gcagagtcctt ttccactgtg aattatgggt ttgttatcgt ttttgttcgt tgctggttgt
121 acgtgacggg agttcagctt tttgctgcgg gacggcagag ataggatgcg gggcttcctg
181 agaggcgccg gggcagggcc gcacaggtcc atccacctcc cctgggaccc cagccctgca
241 gcagcccccag gggagcggcc ggggatcggg gcggggtgcc caggacgcgc cctgattggc
301 ccagtgttag ccaatcaagg ctctcgcata cccatggtgc tgattggtcc gcctccagg
361 cctgacccaa tcggagcatt cctaggagga gcggcccccag agcgctgac tcgggggtcc
421 cagagccctc tgacaccac agcccggtg tcccgtgtg tccctgggtt ctccagccc
481 tgggtgtccc tgagtctctt cttaccgctc agccctggtg tctcccggtt ccctgccaca
541 ccctcatccc tgggtgtccc cgtaacccca tcccctcacc tcctgggctc ctgaaggtcc
601 catcttgttg gcctcattca tggaaaccag acggggcagg tggaggcctc tggggagttt
661 gtccagagaa tggaggagaa gcagggtcat gaggaggagc ggtctgggcc acccctgcct
721 gtcccccggg ggggtgcagc cggaaggagt ccagatggat atggcccccg agtgacagat
781 cagcccaaaa ccaggctggt cccaggcagg gtgggggcag gaggagcccc ggagtggccc
841 tgtgttgggg gtccggggggc aggcaggggg tcctggggct cagaagcgga ggaggtgggc
901 tggaggcccc agtgaccaac aggccacagg gagtccggag gtgggggtga cggacctgca
961 gggacagtgt cagcgctgaa tgggatggag agcacaggga gctggggccc gggatgagac
1021 catggggagc tggggctggg gctgggacta gtccatgggg agctggggct gaagttgggg
1081 gtgagtcctt ggggagctgg gctgggcctc ctgggggttc acctgacctc ctctctgtc
1141 ttccctctgc gtatgaagct cagatcccat gataaggagg cacctgcaga ccaggggacc
1201 tgcacggaca gcccagagg tggacattga ggactcgtag gaggacttgg gtctcatacg
1261 gcgggtgggg agcagggccc cttcctgggt gaggacactt ggtgctgtcc cctctcaagg
1321 ctgtttcccc atctgacaaa ggggtctcat gtgagccccc aaccaagtga gtcgaggagg
1381 gctggcccca ccccgtgga tttggagtcc gtaggagggg tgtaccctgt cagctcccca
1441 ccccggtggc acctcccggt ctcttgagc gtggcccatg gacatgagtt cctcaccggt
1501 gtccctcttg gggaaacagg tttcaggagc gacgggtctt gtagcctggg gcagccaggc
1561 cacctgggtg cagctatgcc tgaaggcctc ctggcaccga gacaggggca ggagcagatc
1621 ccaccagcgg gaaggtgggt cgttctgatg ctgggatcca ccagctgaca ggtggaagctg
1681 cgagcctcca gtgctcagc ctcggcgggg cctgcctggc agccccacac acagagggca
1741 tcgggggtgg gggggcacgt gttacacggg ggccttgggt ctgagtcac cacttcctcc
1801 gaggctggat gggaggaccc agcgccctc ctccgcccc tccgtatctg gaaggataaa
1861 tggggagggg agagcccgct gggtagaagg aacaggaggt ggccagggta agtccctact
1921 ctacagagac ctgacatcag tgtcacctgg agcagagtgg cccagcctca gactcagagc
1981 accaagaccc aggccgcag gcctggaccc acccggtcc ccccgctcca gctccattct
2041 tcaccccaaca atctgtagcc cccagccctg ccctgtgagg cccggccagg cccacgatgc
2101 tcctccttgc tcccagatg ctgagcctgc tgcgtctggc gctgcccgtc ctggcgagcc
2161 cggcctacgc ggcccctggt gaggctccagc cggggtccac cctgcccctc accacattcc
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2281 tgggcccagg cgtggggctg cttcctgtgc ctgacctggc acctgcccc gcccagctcc
2341 aggcctgca gcaagcgggt atcgtcgggg gtcaggaggc cccagaggc aagtggccct
2401 ggcaggtgag cctgagagtc cgcgaccgat actggatgca cttctgtggg ggctccctca
2461 tccaccccca gtgggtgtcg accgcggcgc actgcctggg accgtgagtc tcccagggcc
2521 tggaggggtg ggcaagggtt ggtgtgagc cctggctccc ggggtgtcct gggggctgcc
2581 cagggccctg agtgggatcc tccgtgcccc agggacgtca aggatctgg caccctcagg
2641 gtgcaactgc gggagcagca cctctactac caggaccagc tgcgtccggt cagcaggatc
2701 atcgtgcacc cacagtctca catcatccag actggagcgg atatcgccct gctggagctg
2761 gaggagcccc tgaacatctc cagccgcgtc cacacggtca tgcgtccccc tgcctcgag
2821 accttcccc cggggatgcc gtgctgggtc actggctggg gcgatgtgga caatgatggt
2881 ggggtctggg acagtgggag gtggggccag ggtcttagcc acagcccagc ccctgggctc
2941 caggtggggg ttgcccggcc cctcctcag gctgcacct cttcccacc tgcagagccc
3001 ctcccaccgc catttccct gaagcaggtg aaggtcccca taatgaaaaa ccacatttgt
3061 gacgcaaaat accaccttgg cgcctacacg ggagacgacg tccgcatcat ccgtgacgac
3121 atgctgtgtg ccgggaacac ccggagggac tcatgccagg tgggccccgc gtgtcccccg
3181 cccccgcac cccaaccccc actcccaggc ctgttcggcg agcgtgacc tctgaccttc
3241 ccaggcgac tctggagggc ccctggtgtg caagtgtaat ggcacctgyc tacaggcggg
3301 cgtggtcagc tgggacgagg gctgtgccca gcccaaccgg cctggcatct acaccctgt
3361 cacctactac ttggactgga tccaccacta tgtcccaaaa aagcctgag tcaggcctgg
3421 ggtgtccacc tgggtcactg gagagccagc cctcctgtgc caaaacacca ctgttctta
3481 cccaggtggc gactgcccc cacccttccc ctgcccgtc ctgagtggcc ctctctgtcc
3541 taagccccct gctctcttct gagccccctt cctgtcctg aggaccttc cccatcctga
3601 gcccccttcc ctgtcctaag cctgacgcct gactggggcc ctccggccct cccctgccc
3661 ggcagctggt ggtggcgctt aatcctctg agtgctggac ctcatataag tgcattgaaa
3721 tcaactggtg gcacgcgtgt gtttctggtt gtggatgtca ctgggagaga aggggtccag
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3781 gtgtgctgag gacacctgcc acagtgcgag gtcctagccc tcaaggcaca gccagtcacc
3841 gtgggacggg gcctcctggg cagccctggt ccccggggct ggcttctccc cacacgatgc
3901 atccagcatt cgggtcacac agagccactc gggcaactca gttgattata aaggacagcc
3961 aagtccctgc aaccgggtca agacagagaa tggtcgcccgg gagccccagg gctgccccatc
4021 acgagccccc accccacgct tcccacgagc tcttctcccg gcccctctgt ccaactgctt
4081 tgctttgccc tagttgtttg ctttgagaca ggaatctcgt gtgtcatcca gggtgaagt
4141 cagtgtgtg atcagggtc actgtagcct tgaactcctg ggctcaagg atcctcccat
4201 cttggcctcc catatagctg ggccacagga gtgagccacc acgcccagtt aatttttcta
4261 ttttcagtag agatggggtt tcgcatgtt ggccagtctg gtctcgaact cctgacctca
4321 agtgatctgc ccgctcggc ctcacaaagt gctgggatga caggcgtgag ccaccgcacc
4381 cagcctgagt ttgacatctt caaattcatt ttgaggtctt tctctacatc aatacatgag
4441 ccctccgct cggcgagtg ttgcatttta tcccgggctc ttgtttgcat tttatatatt
4501 aacatgatta cattcaggaa tgaaatgcgg ggctgttctg gttgaaaca actctctaaa
4561 gaaacattca ctcttctctt ccaactgtca gatgcagaga tgtgcattta gtctctcaa
4621 tctctgcaa tgacctctgt cctcacaagg ggtggactcg acttcacag ccctctccag
4681 cccacgtga cctctgcctc tgcagccctc gaaggcccat cctcggctc ctgttctgca
4741 ggcccagcgt cttgtctatg aagatggacc tggaaactcg gccctccttc ctcctctgg
4801 cccatccac cttctaggga tcacagagac agcacggggt gacccccagg gaactctgag
4861 cccctagaag cacttccaca cgcccactgg aggttttgcg ggggtgggag cggagggatg
4921 agacccgaa ggaagcaag acggccctc aggacagggc tgccggtgta aggaagggtg
4981 gacagcagg gccggtcact ggggtggagg ggagggcagg ctccagcccc agagcttccc
5041 aaattagatc taagatccct gggaagctca gtgaagctca gcgcagtac actggcagat
5101 gtgagcgtca gtttcagcag gaagggtctc tcaggacgtg acaggcaggc tgctggccag
5161 ggctgcagcc acctgcgttt tgactgggac gggggcacct gatccaaggt caccacgtg
5221 gctgccggca ggaggccctg gttcccgtc acaagggggt gtgaggggga aggcacaagt
5281 gtggccacan ggttncacc gagagggaca gtgcccagt tggccaagc acctnggac
5341 aagaacaat nccaagtctt nccaaggtcc ttggacaaca aggagaancc ccccaagctt
5401 gggggcnatt aaccaagggc cangncccc cttcccgggt c

```

(2) INFORMATION FOR SEQ ID NO:2642:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2642

```

1 tggacccacc ccggtccccc cgtccagct tccattcttc accccacaat ctgtagcccc
61 cagccctgcc ctgtgaggcc cggccaggcc cacgatgctc ctccttgctc cccagatgct
121 gaatctgctg ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcgg cccctggtga
181 gtcccagccg ggggtccacc tgcccctcac cacattccac aggtcagggc ctgggtgggt
241 tctggggagg ccgggtgggc cccacacagc ggaagggctg ggcccaggcc tggggctgct
301 tcctggctct gacctggcac ctgcccagc cccaggccag gccctgcagc gagtgggcat
361 cgttgggggt caggaggccc ccaggagc

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(2) INFORMATION FOR SEQ ID NO:2643:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2643

```

1 cagatcggag cggacatcgc cctgctggag ctggaggagc cgggtgaaggt ctccagccac
61 gtccacacgg tcacctgcc cctgectca gagaccttcc ccccggggat gccgtgctgg
121 gtcactggct ggggcgatgt ggacaatgat ggtgggtctg gggacagtgg aggtggggcc
181 agggctcttag ccacagccca gccctgggc tccctctggg ctccaggtgg ggggtgccc
241 gcccctcct gaggtgcac cctcttccc acctgcagag cgcctccac cgccatttcc
301 tctgaagcag gtgaaggtcc ccataatgga aaaccacatt tgtgacgcaa aataccacct
361 tggcgccctac acgggagacg acgtccgcat cgtccgtgac gacatgctgt gtgccgggaa
421 cacccgagg gactcatgcc aggtggccc cgctgttccc ccgcccccg caccacaacc
481 cccactccca ggctgttgc gcgagcgtg acctctgacc tcccagggc gactccggag
541 ggcccctgggt gtgaagggtg aatggcacct ggtgcaggc gggcgtggtc agctggggcg
601 agggctgtgc ccagcccaac cggcctggca tctacaccg gtgcacctac tacttggact
661 ggatccacca ctatgtcccc aaaaagcgt gagtcaggcc tgggttggcc acctgggtca
721 ctggaggacc aaccctgct gtccaaaaca ccaactgctt ctaccagggt ggcgactgcc
781 cccacacct tccctgccc gtccctgagt ccccttctg tctaagccc cctgctctct
841 tctgagcccc ttcccctgtc ctgaggacc ttccccatc tgagccccct tccctgtcct
901 aagcctgacg cctgcactgg gccctccggc cctcccctgc ccaggcagct ggtggtgggc
961 gctaatactc ctgagtgtgc gacctatta aagtgcattg aaatcactgg tgtgcatcgc
1021 tgtgtttctg gttgtggatg tcaactggag agaaggggtc cagggtgtgct gaggacacct

```

1081 gccacagtgt gaggtcctag cctcaaggc acaagccagt caccgtggga cggggcctct
1141 gggcagccct ggtccccgag ctggctt

(2) INFORMATION FOR SEQ ID NO:2644:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2644

1 ccaggatgct gaatctgctg ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcgg
61 cccctgcccc aggcaggcc ctgcagcgag tgggcatcgt tgggggtcag gaggcccca
121 ggagcaagtg gccctggcag gtgagcctga gagtccacgg cccatactgg atgcattct
181 gcgggggctc cctcatccac cccagtgagg tgctgaccgc agcgactgc gtgggaccgg
241 acgtcaagga tctggccgcc ctgagggtgc aactgcggga gcagcacctc tactaccagg
301 accagctgct gccggtcagc aggatcatcg tgcaccaca gttctacacc gccagatcg
361 gagcggacat cgccctgctg gagctggagg agcgggtgaa ggtctccagc cacgtccaca
421 cggtcaccct gcccctgcc tcagagacct tcccccgagg gatgccgtgc tgggtcactg
481 gctggggcga tgtggacaat gatgagcgcc tcccaccgcc atttcctctg aagcaggtga
541 aggtcccat aatggaaaac cacatttggt acgcaaaata ccaccttggc gcctacacgg
601 gagacgacgt cgcacatcgc cgtgacgaca tgctgtgtgc cgggaacacc cggagggact
661 catgccaggg cgactccgga gggcccctgg tgtgcaaggT gaatggcacc tggctgcagg
721 cgggcgtggt cagctggggc gagggctgtg cccagcccaa ccggcctggc atctacacc
781 gtgtcaccta ctactggac tggatccacc actatgtccc caaaaagccg tgagttaggc
841 ctgggtgtgc cacctgggtc actggaggac caaccctgc tgtccaaac accactgctt
901 cctaccagg tggcgactgc cccccacacc ttcctgccc cgtcctgagt gcccttcct
961 gtcctaagcc ccctgctctc ttctgagccc cttcccctgt cctgaggacc cttcccctc
1021 ctgagccccc ttcctgtcc taagcctgac gcctgactg ctccggccct cccctgcca
1081 ggcagctggt ggtggcgct aatcctctg agtgcggac ctcattaaag tgcattgaaa
1141 tca

(2) INFORMATION FOR SEQ ID NO:2645:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2645

1 ggccaggatg ctgaatctgc tgctgctggc gctgcccgtc ctggcgagcc gcgcctacgc
61 gggcccctgcc ccaggccagg cctgcagcg agtgggcatc gttgggggtc aggaggcccc
121 caggagcaag tggccctggc aggtgagcct gagagtccac ggccatact ggatgcattt
181 ctgcgggggc tccctcatcc acccccagtg ggtgctgacc gcagcgact gcgtgggacc
241 ggacgtcaag gatctgccc cctcagggt gcaactgcgg gagcagcacc tctactacca
301 ggaccagctg ctgccggtca gcaggatcat cgtgcaccca cagttctaca ccgcccagat
361 cggagcggac atgcacctgc tggagctgga ggagccggtg aaggtctcca gccacgtcca
421 caccgtcacc ctgcccctgc cctcagagac cttcccccg gggatgccgt gctgggtcac
481 tggctggggc gatgtggaca atgatgagcg cctcccaccg ccatttcctc tgaagcaggt
541 gaaggtcccc ataatggaaa accacatttg tgacgcaaaa taccaccttg gcgcctacac
601 gggagacgac gtccgcatcg tccgtgacga catgctgtgt gccgggaaca ccggaggga
661 ctcatgccag ggcgactccg gagggcccct ggtgtgcaag gtgaatggca cctggctgca
721 ggcgggcggtg gtcagctggg gcgagggtg tgcccagccc aaccggcctg gcactacac
781 ccgtgtcacc tactacttgg actggatcca ccactatgtc cccaaaagc cgtgactcag
841 gcctgggttg gccacctggg tcaactggagg accaaccct gctgtccaaa acaccactgc
901 ttcctacca ggtggcgact gcccaccaca ccttcctgc cccgtcctga gtgcccctc
961 ctgtcctaag cccctgctc tctctgagc ccttcctct gtcctgagga cccttcccc
1021 tctgagccc ccttcctgt cctaagcctg acgcctgcac cgggcctcc gccctcccc
1081 tgcccaggca gctggtggtg ggcgctaata ctcctgagt ctggacctca ttaagtga
1141 tggaa

(2) INFORMATION FOR SEQ ID NO:2646:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2646

1 tgaatctgct gctgctggcg ctgcccgtcc tggcgagccg cgcctacgcg gcccctgccc
61 caggccaggc cctgcagcga gtggcatcgt tgggggtcga ggaggcccc aggagcaagt
121 gggccctggca ggtgagcctg agagtccacg gccatactg gatgcacttc tgcgggggct
181 cctcatcca ccccagtggt gtgctgaccg cagcgactgc cgtgggaccg gacgtcaagg

241 atctggccgc cctcaggggtg caactgcggg agcagcacct ctactaccag gaccagctgc
301 tgccgggtcag caggatcatc gtgcacccac agttctacac cgcccagatc ggagcggaca
361 tcgcccgtct ggagctggag gagccgggtga acgtctccag ccacgtccac acggtcaccc
421 tgccccctgc ctacagagacc ttccccccgg ggatgccgtg ctgggtcact ggctggggcg
481 atgtggacaa tgatgagcgc ctcccaccgc catttctct gaagcaggtg aaggccccca
541 taatggaaaa ccacatttgt gacgcaaaat accaccttgg cgctacacg ggagacgacg
601 tccgcatcgt ccgtgacgac atgtgtgtgt cggggaacac ccggaggggac tcatgccagg
661 gcgactccgg agggcccctg gtgtgcaagg tgaatggcac ctggctgcag gcgggcgtgg
721 tcagctgggg cgagggtgt gcccagccca accggcctgg catctacacc cgtgtcacct
781 actacttga ctggatccac cactatgtcc ccaaaaagcc gtgagtcagg cctgggttgg
841 ccacctgggt cactggagga ccaaccctg ctgtccaaa caccactgt tcctaccag
901 gtggcgactg ccccccacac ctccctgccc cgtcctgag tgccccttc tgcctaagg
961 cccctgtct cttctgagcc cttccccctg tcttgaggac cttccctat cctgagcccc
1021 cttccctgtc ctaagcctga cgctgcacc gggccctcca gccctccct gccagatag
1081 ctgggtgtgg gcgctaattc tcttgagtgc tggacctcat taaagtgcac ggaaatc

(2) INFORMATION FOR SEQ ID NO:2647:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2647

1 accagctgac aggtggagct gccagtctcc agtgctcagc cctcagcggg gctgacctgg
61 cagccccaca cacagagggc atcggggtgg cgggggcacg tgttacacgg gggccctggg
121 tctgagtcac ccacttcctc cgagtctgga tgggaggacc cagcgccct cctccgcccc
181 ctctgatctt ggaaggataa atggggaggg gagagccact gggtagaagg aacaggaggt
241 ggccagggtg agtccccact ctacagagacc ctgacatcag cgtcacctgg agcagagttg
301 cccagcctca gactcagagc accaagacc ccgcccagc gcctggacc accccgttcc
361 ccccgctcca gctccattct tcacccaca atctgtagcc cccagccctg cctgtgagg
421 cccggccagg cccacgatgc tctccttgc tcccagatg ctgaatctgc tctgtctggc
481 gctgcccgtc ctggcgagcc gcgcctacgc ggcccctgg gtgtcccagc cggggtccac
541 cctgcccctc accacattcc acaggtcagg gcctgggtgg gttctgggga ggtcgggctg
601 gccccccaca cagggaaggc ctgggcccag gcctggggct gcttctggt cctgacctgg
661 cacttgcccc agccccaggc caggccctgc agcgagtggt catcgtcggg ggtcaggagg
721 cccccaggag caagtggccc tggcaggtga gcctgagagt ccacggcca tactggatgc
781 acttctgcgg gggctccctc atccaccccc agtggtgtgt gaccgcagcg cactgcgtgg
841 gaccgtgagt ctccggggc ctggagggtt ggggaagggc tggatgtgag cctgtgctcc
901 cgggtgtctc tgggggctgc ccagggccct gagtgggatc ctccgctgcc cagggacgtc
961 aaggatctgg ccgcccctag ggtgcaactg cgggagcagc accttacta ccaggaccag
1021 ctgctgccgg tcagcaggat catcgtgcac ccacagttct acaccgcca gatcgagcg
1081 gacatcgccc tgctggagct ggaggagccg gtgaacgtct ccagccact ccacacggtc
1141 accctgcccc ctgcctcaga gaccttcccc ccggggatgc cgtgctgggt cactggctgg
1201 ggcgatgtgg acaatgatgg tgggtctggg gacagtggag gtggggccag ggtcttagcc
1261 acagcccagc cctgggttcc ctctgggtc caggtggggg ttgcccggcc cctctctgag
1321 gctgcaccct cttccccacc tgcagagcgc ctcccaccgc catttctct gaagcaggtg
1381 aaggccccca taatggaaaa ccacatttgt gacgcaaaat accaccttgg cgctacacg
1441 ggagacgacg tccgcatcgt ccgtgacgac atgctgtgtg ccgggaacac ccggagggac
1501 tcatgccagg tgggccccgc ctgtcccccg ccccccgccc cccaaccccc actcccaggc
1561 ctgttcggcg agcgtgacc tctgacctc ccaggggcag tccggagggc cctgtgtgtg
1621 caaggtgaat ggcacctggc tgcaggcggg cgtggtcagc tggggcgagg gctgtgcca
1681 gcccaaccgg cctggcatct acaccctgt cactactac ttggactgga tccaccacta
1741 tgtcccaaaa aagccgtgag tcaggcctgg gttggccacc tgggtcactg gaggaccaac
1801 cctgctgtc caaaacacca ctgcttcta ccaggtggc gactgcccc cacaccttcc
1861 ctgccccgtc ctgagtgccc ctctcttcc taagccccct gctctcttct gagccccctc
1921 cctgtcctg aggaccttc cctatctga gcccccttcc ctgtcctaag cctgacgct
1981 gcaccgggccc ctccagccct cccctgcca gatagctggt ggtgggctct aatcctctg
2041 agtgcgtgac ctcatataag tgcattgaaa tcaactggtg gcacgcgtg gtttctggt
2101 gtggatgtca ctgggagaga aggggtccag gtgtgctgag gacacctgcc acagtgtgag
2161 gtccatagccc tcaaggcaca gccagtcacc gtgggac

(2) INFORMATION FOR SEQ ID NO:2648:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2648

1 ggaattccgt ggccaggatg ctgagcctgc tgctgctggc gctgcccgtc ctggcgagcc

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61  gcgcctacgc  ggccccctgcc  ccagtcagg  ccctgcagca  agcgggtatc  gtcgggggtc
121  aggaggcccc  caggagcaag  tggccctggc  aggtgagcct  gagagtccgc  gaccgatact
181  ggatgcactt  ctgcgggggc  tccctcatcc  acccccagtg  ggtgctgacc  gcggcgact
241  gcctgggacc  ggacgtcaag  gatctggcca  ccctcaggg  gcaactgcg  gagcagcacc
301  tctactacca  ggaccagctg  ctgccagtca  gcaggatcat  cgtgcaccca  cagttctaca
361  tcatccagac  tggagcggat  atcgccctgc  tggagctgga  ggagcccgtg  aacatctcca
421  gccgcgtcca  cacggtcatg  ctgcccctg  cctcggagac  cttccccccg  gggatgccgt
481  gctgggtcac  tggctggggc  gatgtggaca  atgatgagcc  cctcccaccg  ccatttcccc
541  tgaagcaggt  gaaggtcccc  ataatggaaa  accacatttg  tgacgcaaaa  taccaccttg
601  gcgcctacac  gggagacgac  gtccgcatca  tccgtgacga  catgctgtgt  gccgggaaca
661  gccagaggga  ctccctgcaag  ggcgactctg  gagggcccct  ggtgtgcaag  gtgaatggca
721  cctggctaca  ggcgggcggtg  gtcagctggg  acgagggctg  tgcccagccc  aaccggcctg
781  gcactctacac  ccgtgtcacc  tactacttgg  actggatcca  ccactatgtc  cccaaaaagc
841  cgtgagtcag  gccctgggtg  gccacctggg  tccctggagg  accaaccctt  gctgtccaaa
901  acaccactgc  ttccctacca  ggtggcgact  gcccccaca  ccttccctgc  ccgctcctga
961  gtgccccttc  ctgtcctaag  ccccctgtc  tcttctgagc  ccttccccct  gtctctgagga
1021  ccttccccca  tctgagccc  ccttccctgt  cctaagcctg  acgctgcac  tgctccggcc
1081  ctcccctgcc  caggcagctg  gtggtggcg  ctaatcctcc  tgagtgtctg  acctcattaa
1141  agtgcattga  aatc

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(2) INFORMATION FOR SEQ ID NO:2649:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2649

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1  gctgcccgtc  ctggcgagcc  gcgcctacgc  ggccccctgcc  ccaggccagg  ccctgcagcg
61  agtgggcatc  gttgggggtc  aggaggcccc  caggagcaag  tggccctggc  aggtgagcct
121  gagagtccgc  gaccgatact  ggatgcactt  ctgcgggggc  tccctcatcc  acccccagtg
181  ggtgctgacc  gcagcgact  gcgtgggacc  ggacgtcaag  gatctggccg  ccctcagggg
241  gcaactgcgg  gagcagcacc  tctactacca  ggaccagctg  ctgccgggtc  gcaggatcat
301  cgtgcaccca  cagttctaca  ccgcccagat  cggagcggac  atcgccctgc  tggagctgga
361  ggagccgggtg  aaggtctcca  gccacgtcca  cacggtcacc  ctgcccctg  cctcagagac
421  cttccccccg  gggatgccgt  gctgggtcac  tggctggggc  gatgtggaca  atgatgagcg
481  cttccccacc  ccatttcttc  tgaagcaggt  gaaggtcccc  ataatggaaa  accacatttg
541  tgacgcaaaa  taccaccttg  gcgcctacac  gggagacgac  gtccgcatcg  tccgtgacga
601  catgctgtgt  gccgggaaca  cccggaggga  ctcatgccag  ggcgactccg  gagggcccct
661  ggtgtgcaag  gtgaatggca  cctggctgca  ggcgggcggtg  gtcagctggg  gcgagggctg
721  tgcccagccc  aaccggcctg  gcactctacac  ccgtgtcacc  tactacttgg  actggatcca
781  ccactatgtc  cccaaaaagc  cgtgagtcag  gccctgggtg  tccacctggg  tccctggagg
841  accagcccct  cctgtccaaa  acaccactgc  ttccctacca  ggcggcgact  gcccccaca
901  ccttccctgc  ccgctcctga  gtgccccttc  ctgtcctaag  ccccctgtc  tcttctgagc
961  cccttcccc  gtctgagga  ccttccccca  tctgagccc  ccttccctgt  cctaagcctg
1021  acgctgcac  cgggcccctc  ggcccctccc  tgcccaggca  gctggtgggtg  ggcgctaata
1081  c

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(2) INFORMATION FOR SEQ ID NO:2650:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2650

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1  atctggaagc  ataaatgggg  aggggagagc  ccactgggta  gaaggaacag  ggagcgcca
61  gggtaagtcc  ccactctcag  agaccctgac  atcagcgtca  cctggagcag  agtggcccag
121  cttcagactc  agagcaccaa  gaccagggcc  tgcaggcctg  gaccacccc  ggtccccccg
181  tcccagctcc  attcttcacc  ccacaatctg  tagccccag  cctgcccctg  tgaggcccgg
241  ccaggcccac  gatgtctctc  cttgtctccc  agatgctgaa  tctgctgtg  ctggcgctgc
301  ccgtctctgg  gagccgcgcc  tacggggccc  ctggtgagtc  ccagccgggg  tccaccctgc
361  ccctcaccac  attccacagg  tcagggcctg  ggtgggttct  ggggaggtcg  ggctggcccc
421  cacacaggga  agggctgggc  ccaggcctgg  ggctgcttcc  tggctcctg  ctggcactgc
481  ccccagcccc  agccagggcc  ctgcagcgag  tgggcatcgt  tgggggtcag  gagggcccca
541  ggagcaagtg  gccctggcag  gtgagcctga  gagtccgcga  ccgatactgg  atgcaattct
601  gcgggggctc  cctcatccac  ccccagtggt  tgctgaccgc  agcgactgc  gtgggaccgt
661  gagtctcccg  gggcctggag  ggggtgggaa  gggctggatg  tgagccctgg  ctcccgggtg
721  ctctggggg  ctgcccagg  ccctgagtg  gatcctccgc  tgcccaggga  cgtcaaggat
781  ctggccgccc  tcagggtgca  actgcgggag  cagcacctct  actaccagga  ccagctgctg
841  ccggtcagca  ggatcatcgt  gcaccacag  ttctacaccg  cccagatcgg  agcgacatc

```

901 gccctgctgg agctggagga gccggtgaac gtctccagcc acgtccacac ggtcaccctg
961 cccctgcct cagagacctt ccccccggg atgccgtgct gggtcactgg ctggggcgat
1021 gtggacaatg atggtgggtc tggggacagt ggaggtgggg ccagggtctt agccacagcc
1081 cagccccctg gctccctctg ggctccaggt gggggttgcc cggccccctc ctgaggctgc
1141 accctcttcc ccacctgcag agcgctccc accgccattt cctctgaagc aggtgaaggt
1201 ccccataatg gaaaaccaca ttgtgacgc aaaataccac cttaggcgct acacgggaga
1261 cgacgtccgc atcgctcgtg acgacatgct gtgtgccggg aacaccggga gggactcatg
1321 ccagggtgggc cccgctgtc ccccgcccc cggccccaa cccccactcc caggcctgtt
1381 cggcgagcgc tgacctctga ccttcccagg gcgactccgg agggccccctg gtgtgcaagg
1441 tgaatggcac ctggctgcag gcgggcgtgg tcagctgggg cgagggtgtg gccagccca
1501 accggcctgg catctacacc cgtgtcacct actacttgga ctggatccac cactatgtcc
1561 ccaaaaagcc gtgagtcagg cctgggggtg ccacctgggt cactggagag ccagccccctc
1621 ctgtccaaaa caccatgct tccctaccag gtggcgactg cccccacac tccctctgcc
1681 ccgtcctgag tgccccctcc tgtcctaagc cccctgctct cttctgagcc cttccccctg
1741 tcctgaggac ctttccccat cctgagcccc cttccctgtc ctaagcctga cgctgcacc
1801 gggccccctg gccctcccc gcccaggcag ctggtgggtg gcgctaattc tcctgagtgc
1861 tggaacctcat taaagtgcag ggaatcact ggtgtgcac gctgtgttcc tgggtgtgga
1921 tgtcactggg agagaagggg tccaggtgtg ctgaggacac ctgccacagt gtgaggtcct
1981 agccctcaag gcacagccag tcaccgtggg acggggcctc ctgggcagcc ctggtccccg
2041 aggtggcctt cccccacac gatgcattcc gcattcgggt cacacagagc cactcgggca
2101 actcagttga ttataaagga cagccaggtc cctgcaaccg ggtcaagaca gaaatgggca
2161 ccgggaaccc cagggtgcc catcacgagc cctaccacca cgcttccac gagctcttct
2221 cccggcccc cgtccatgc ttgtgctttg cctaattgtt tgcttttgag aacgggattg

(2) INFORMATION FOR SEQ ID NO:2651:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2651

1 ggggtctcaag gaattcttat tctgcgtctt cattctgaac tggatggaac cttcctgagc
61 gcagagtcct ttccactgtg aattatgggt ttgttatcgt tttgttctgt tgctggttgt
121 acgtgacggg agttcagctt tttgtgcgg gacggcagag ataggatgcg gggcttccctg
181 agaggcgccg gggcagggcc gcacaggtcc atccacctcc cctgggaccc cagccctgca
241 gcagcccccag gggagcgcc ggggatcggg gcgggggtgc caggacgcgc cctgattggc
301 ccagtgttag ccaatcaagg ctctcgcatc cccatgggtg tgattgtgtc gcctccagg
361 cctgacccaa tcggagcatt cctaggagga gcggccccag agcgctgac tcgggggtcc
421 cagagccctc tgcacaccac agccccgggtg tccccgtgtg tccctgggtt ctcccagccc
481 tgggtgtcccc tgagtctctt cttcacccgc agccctgtgt tctcccggtt cctgccaca
541 ccctcatccc tgggtgtcccc cgtcacccca tccccctacc tccctgggtc ctgaagggtc
601 catcttggg gcctcattca tggaaaccag acggggcagg tggaggcctc tggggagttt
661 gtccagagaa tggaggagaa gcagggtcat gacgaggagc ggtctggggc accctgcct
721 gtcccccggg ggggtgcagcc cggaaggagt ccagatggat atggccccgc agtgcagagt
781 cagccccaaa ccaggctggt cccaggcagg gtgggggcag gaggagcccc ggagtggccc
841 tgtgttgggg gtccggggggc aggcaggggg tcctggggct cagaagcgga ggaggtgggc
901 tggaggcccc agtgaccaac agggccacgg gagtgcggag gtgggggtga cggacctgca
961 gggacagtgt cagcgctgaa tgggatggag agcacaggga gctggggccg gggatgagac
1021 catggggagc tggggctggg gctgggacta gtccatgggg agctggggct gaagtgggg
1081 gtgagtccat ggggagctgg ctggggcctc ctgggggtgc acctgcactc ctctctgtc
1141 ttcctctctg gtatgaagct cagatcccat gataaggagg cacctgcaga ccaggggacc
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1261 gcgggtgggg agcagggccc cttcctgggt gaggacactt ggtgctgtcc cctctcaagg
1321 ctgtttcccc atctgacaaa ggggtctcat gtgagcccc aaccaagtga gtcgaggagg
1381 gctggcccca ccccggtgga ttggaggtcc gtaggagggg tgcacccgt cacgtcccca
1441 cccgtgggc accttcccg ctcttggagc gtggcccatg gacatgagtt cctcacccgt
1501 gtccctcttg gggaaacagg ttccaggagc gacgggtctt gtgacctgg gcagccaggc
1561 cacctgggtg cagctatgcc tgaaggcctc ctggcaccga gacaggggca ggagcagatc
1621 ccaccagcgg gaaggtggtg cgtctgatg ctgggatcca ccagctgaca ggtggagctg
1681 cgagcctcca gtgtcagcc ctgcggggg cctgcctggc agccccacac acagagggca
1741 tcgggggtgg gggggcacgt gttacacggg ggccctgggt ctgagtcate cacttccctc
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1861 tggggagggg agagcccgct ggtagaagg aacaggaggt ggccagggtg agtccctact
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1981 accaagaccc agggccgcag gcctggaccc acccggtcc ccccgctcca gctccattct
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2161 cggcctacgc gggccctggt gagtccacgc cgggggtccac cctgccccctc accacattcc
2221 acaggtcagg gcctgggtgg gttctgggga ggctgggctg gccccacac agggaagggc

2281 tgggcccagg cgtggggtg cttcctggtc ctgacctggc acctgcccc gccccagtc
2341 aggccctgca gcaagcgggt atcgtcgggg gtcaggaggc cccaggagc aagtggccct
2401 ggcaggtgag cctgagagtc cgcgaccgat actggatgca cttctgtggg ggctccctc
2461 tccaccccc gtgggtgctg acccgggcgc actgctggg accgtgagtc tcccaggggc
2521 tggagggtg ggcaagggtt ggatgtgagc cctggctccc ggggtgctct gggggctgcc
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2761 gaggagcccg tgaacatctc cagcccgctc cacacggtca tgctgcccc tgcctcggag
2821 accttcccc cggggatgac gtgctgggtc actggctggg gcgatgtgga caatgatggt
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2941 caggtggggg ttgcccggcc cctcctcag gctgcacct cttccccacc tgcagagccc
3001 cteccaccgc catttcccc gaagcaggtg aagggtcccc taatggaaaa caatattgt
3061 gacgcaaaat accagcttgg cgcctacacg gggagcagc tccgcatcat ccgtgacgac
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3781 gtgtgctgag gacactgccc acagtgcgag gtcctagccc tcaaggcaca gccagtcacc
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3961 aagtcctgc aaccgggtca agacagagaa tggctgcccg gagccccagg gctgcccac
4021 acgagcccc accccacgct tcccacgagc tcttctccc gcccctctgt ccaactgctg
4081 tgctttgccc tagttgtttg ctttgagaca ggatctcgt gtgtcatcca ggctgaagt
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4201 cttggcctcc catatagctg gcccacagga gtgagccacc acgcccagtt aattttgtta
4261 ttttcagtag agatggggtt tcgcatgtt ggccagtctg gtctcgaact cctgacctca
4321 agtgatctgc ccgctcggc ctcccaaagt gctgggatga caggcgtgag ccaccgcacc
4381 cagcctgagt ttgacatttt caaattcatt ttgaggtctt tctctacatc aatacatgag
4441 ccctccgct ccggcgagtg ttgcatttta tcccgggtc ttgtttgcat tttatattt
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4621 tctctgcaaa tgacctctgt cctcacagg ggtggactcg acttcagcg cctctccag
4681 cccacgtga cctctgctc tgcagccct gaaggccat cctcggctc ctgttctgca
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4861 cccctagaag cacttcaca cgcctactgg aggttttgcg ggggtggagt cggagggatg
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5341 aagaaacaat nccaagtctt nccaaggtcc ttggacaaca aggagaancc cccagctt
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1 tggaccacc ccggtcccc cgtccagct tccattctt accccacaat ctgtagcccc
61 cagccctgcc ctgtgaggcc cggccaggcc cagatgctc ctcttctc cccagatgct
121 gaactctgtg ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcg cccctggtga
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1 cagatcggag cggacatgc cctgctggag ctggaggagc cggatgaagt ctccagccac
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361 tggcgctac acgggagac cgtccgcat cgtccgtgac gacatgctg gtgcgggaa
421 caccggagg gactcatgcc aggtggggc cgcgtgtccc ccgcccccg caccacaacc

481 cccaactccca ggcctgttcg gcgagcgctg acctctgacc ttcccagggc gactccggag
541 ggccctcgtt gtgcaagggt aatggcacct ggctgcaggc gggcgctgtc agctggggcg
601 agggctgtgc ccagcccaac cggcctggca tctacacccg tgtcacctac tacttggact
661 ggatccacca ctatgtcccc aaaaagcgt gactcaggcc tgggttggcc acctgggtca
721 ctggaggacc aaccctgtct gtccaaaaca ccaactgttc ctaccagggt ggcgactgcc
781 cccacacact tccctgcccc gtccgtagtg ccccttccgt tcctaagccc cctgtctct
841 tctgagcccc tccccctgtc ctgaggaccc tccccatcc tgagccccct tccctgtcct
901 aagcctgacg cctgcaactg gccctccggc cctccctgc ccaggcagct ggtgggtggc
961 gctaactctc ctgagtgtg gacctatta aagtgcattg aaatcaactg tgtgcatcgc
1021 tgtgtttctg gttgtggatg tcaactggag agaaggggtc caggtgtgct gaggacacct
1081 gccacagtgt gaggtcctag cctcaaggc acaagccagt caccgtggga cggggcctct
1141 gggcagccct ggtccccgag ctggctt
1 ccaggatgct gaattctgct ctgctggcgc tgcccgtcct ggcgagccgc gcctacgcg
61 cccctgcccc aggcaggcc ctgcagcgag tgggcatcgt tgggggtcag gaggcccca
121 ggagcaagtg gccctggcag gtgagcctga gactccacgg ccataactg atgcacttct
181 gcgggggctc cctcatccac cccagtggtg tgtgaccgc agcgcaactg gtgggaccgg
241 acgtcaagga tctggccgcc ctcagggtgc aactgcggga gcagcacctc tactaccagg
301 accagctgct gccggtcagc aggatcatcg tgcaccaca gttctacacc gccagatcg
361 gagcggacat cgcctgtctg gagctggagg agccggtgaa ggtctccagc cagttccaca
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(2) INFORMATION FOR SEQ ID NO:2652:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2652

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(2) INFORMATION FOR SEQ ID NO:2653:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2653

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(2) INFORMATION FOR SEQ ID NO:2654:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2654

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16141 tgcccggtta agttttgtat ttttttttt ttccagagat aggggtttgc tatgttgctt
16201 aggtggtct tgaactcctg agctcaagca atccaccgc ctacgctcc caaagtgtg
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(2) INFORMATION FOR SEQ ID NO:2655:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2655

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181 tctgcaaat ttaataaatg ctttatttta agctaaatgc tgagatgaaa aaatgaaacc
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541 atcctatttg ccattgtctt tgagcctcaa aggaacatat taaaactcca taataccctt
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2281 atcacgacag caacttaaaa tgcttgaggaa gatggtcgtg atccttggag cctcaaatat
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(2) INFORMATION FOR SEQ ID NO:2656:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2656

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61 gcttctcaag cttttaaaat cgagaccacc ccagaatcta gatattcttg tcagattggg
121 gactccgtct cattgacttg cagcaccaca ggctgtgagt cccatttttt ctcttggaga
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(2) INFORMATION FOR SEQ ID NO:2657:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2657

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301 gctccatcaa tatgcacttg ttgtagttag gccaccgagg aggggtgcaat cctctcaacc
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541 atcctatttg ccattgtctt tgagcctcaa aggaacatat taaaactcca taataccctt
601 ttgatctatt ctgaagttaa gtagtgaatt tacatgatga tgacacaaac actgtaaagg
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901 agaaaagagg tggaaattaat tgttcaagag aaaccattta ctgttgagat ctcccttggg

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961 ccccgattg ctgctcagat tggagactca gtcattgtga catgtagtgt catgggctgt
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2041 ttaacacttg atgttcaagg aagagaaaac acaaagact attttctcc tgagcttctc
2101 gtgctctatt ttgcatcctc ctttaataa cctgccattg gaatgataa ttactttgca
2161 agaaaagcca acatgaagg gtcataatgt cttgtagaag cacagaaatc aaaagtgtag

```

(2) INFORMATION FOR SEQ ID NO:2658:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2658

```

1 gcaggaacag tgctagtatt gctcgagccc gagggctgga ggtagggga tgaaggtctg
61 cttccacgct ttgactgaa ttagggctag aattggggat gggggtagg ggcattcct
121 tcgggagccg aggcttaagt cctcggggtc ctgtactcga tgccgtttct cctatctctg
181 agcctcagaa ctgtcttcag tttccgtaca agggtaaaaa ggcgtctctt gcccatccc
241 ccccgacctc gggaacaagg gtccgcattg aaccaggtgc gaattgtctc tctcattctg
301 cgccgttccc gcctcccctc cccagccgc ggcccccgcc tcccccgca ctgcaccctc
361 ggtgttggct gcagcccgcg agcagttccc gtcaatccct cccccctac acaggatgtc
421 catattagga catctgcgtc agcaggtttc cacggccttt ccctgtagcc ctggggggag
481 ccatccccga aaccctcat cttggggggc ccacgagacc tctgagacag gaactgcgaa
541 atgctcacga gattaggaca cgcgccaagg cgggggcagg gagctgcgag cgctggggac
601 gcagccgggc ggccgcagaa gcgcccaggc ccgcgcgcca cccctctggc gccaccgtgg
661 ttgagcccggt gacgtttaca ctcatccta aaacgcttgt tataaaagca gtggctgcgg
721 cgccctgtac tccaaccgca tctgcagcga gcaactgaga agccaagact gagccggcgg
781 ccgcgcgcca gcgaacgagc agtgaccgtg ctccatccca gctctgttc acagcgccca
841 cctgtctccg cccctcgccc cctcgccgg ctttgcctaa ccgccacgat gatgttctcg
901 ggcttcaacg cagactacga ggcgtcatcc tcccgtgca gcagcgctc cccggccggg
961 gatagcctct cttactacca ctacccgca gactccttct ccagcatggg ctgcctgtc
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1081 aggagacacc gggcgggacg ctccagtaga tgagtgggg gctcccttgt gcctggaggg
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1261 ctggtctgca ctccaggacg gatctctgac attagctgga gcagacgtgt cccaagcaca
1321 aactcgctaa ctgagcctg gcttcttcgg ggaggtggca gaaagcggca atccccctc
1381 ccccggcagc ctggagcagc gaggagggat gaggagagg ggtgcagcgg gcgggtgtgt
1441 aaggcagttt cattgataaa aagcgagttc attctggaga tcccggagcg gcgcctgct
1501 cagcgagac gtcagggata ttataacaa acccccttc aagcaagtga tgctgaaggg
1561 ataacgggaa gcgagcgga ggaaggga gacaggcact cgctgcgga atgcctggga
1621 ggaaggggg gagacctttc atccaggatg agggacattt aagatgaaat gtccgtggca
1681 ggatcgtttc tcttactgc tgcagcggc actgggaact cggccacct gtgtccgaa
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1981 accatgacag gaggccgagc gcagagcatt ggcaggagg gcaaggtagg acaggtgagg
2041 aactctagcg tactcttctt gggaatgtgg gggctgggtg ggaagcagcc ccggagatgc
2101 aggagcccag tacagaggat gaagccactg atggggctgg ctgcacatcc gtaactggga
2161 gccctggctc caagcccat ccaccccaac tcagactctg agtctcacc taagaagtac
2221 tctcatagtt tcttccctaa gtttcttacc gcatgcttcc agactgggt cttcttgtt
2281 ctcttgctga gcatcttatt ttaaagcaa gtcacaccta tctgcaact gcaggtcaga

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2341 aatgggtttca cagtgggggtg ccaggaagca gggaaagctgc aggagccagt tctactgggg
2401 tgggtgaatg gaggtgatgg cagacacttt tactgaatgt cggctctttt ttgtgattat
2461 tctagtattc tccagaagaa gaagagaaaa ggagaatccg aagggaagg aataagatgg
2521 ctgcagccaa atgccgcaac cggaggagg agctgactga tacactccaa cgggtaggta
2581 ctctgtgggt tgcctctttt taaaacttaa gggaaagtgt gagattgagc ataaggggcc
2641 ttgagtaaga ctgtgtctta tgccttctt tatccctctg tatacaggag acagaccaac
2701 tagaatatga gaagtctgct ttgcagaccg agattgccaa cctgctgaag gagaaggaaa
2761 aactagagtt catcctggca gctcacccgac ctgcctgcaa gatccctgat gacctgggct
2821 tcccagaaga gatgtctgtg gcttcccttg atctgactgg gggcctgcc aaggttgcca
2881 ccccgagtc tgaggaggcc ttacccctgc ctctcctcaa tgaccctgag cccaagccct
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3001 tctgttccc agcatcatcc agggccagtg gctctgagac agcccgtcc gtgccagaca
3061 tggacctatc tgggtccttc tatgcagcag actgggagcc tctgcacagt ggctccctgg
3121 ggtgggggcc catggccaca gagctggagc ccctgtgcac tccgtgggtc acctgtactc
3181 ccagctgcac tgcctacacg tcttctctcg tcttcaccta ccccgagget gactccttcc
3241 ccagctgtgc agctgcccac cgcaaggcca gcagcagcaa tgagccttcc tctgactcgc
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3361 acaagtgcc ctgcccagc tgggtcatta cagagaggag aaacacatct tccctagagg
3421 gttcctgtag acctaggagg gaccttatct gtgcgtgaaa cacaccaggc tgtgggctc
3481 aaggacttga aagcatccat gtgtggactc aagtccttac ctcttccgga gatgtagcaa
3541 aacgcattga gtgtgtattg ttcccagtga cacttcagag agctggtagt tagtagcatg
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3841 agctatatcc atgtactgta gttttcttc aacatcaatg ttcattgtaa tgttactgat
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5101 tgcccttcat tcagtttata gtggcggaat gtgggggaga aaaagtgtgt cagaaatcaa
5161 aagatatctc aaacagcaca aataatggct gatcgttctg caaacaataa gttacataat
5221 agctcaagaa ggagaagtca acatgactct gaacaagctt taacttagaa accttatcat
5281 cttaagggaag aacgtgacct ttgtccagga cgtctctggt aatggggcac ttacacacac
5341 atgcacacgt acaaaccaca gggaaaggag accgcccctc tgcctctgct cgcgagtac
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5641 ctcttatatc acacaccact tgggtgtctg tttctgctag acttggtatg acagtggcct
5701 taggatccct gtttctgtt caaagggcaa atattttata gcctttaaat atacctaaac
5761 taaatacaga attraatataa ctaacaaaca cctggtctga aataacaagg tgatctaccc
5821 tggaagggaac ccagctggtg ggccaggagc ggtggctcac acctgtaatt ccagcacttt
5881 gggaggctga gacaggagga tcaactggag ccaggagttt gagaccagcc tgggcaacat
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6001 tatgacttga gcctgggagg gggaggttgc agagaactga tattgcacca ccactgcact
6061 ccagcctggg tgacacagca aaacctatc tcaaaaaaaa aaaaaaaa aaggaaacca
6121 gctggttctt gtaggtgtgc aataataaca accagaggaa gaaaaggag acgatttccc
6181 agatgaagaa gggcagctgg accttcggac

(2) INFORMATION FOR SEQ ID NO:2659:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2659

```
1 gcagccgggc ggccgcagaa gcgcccaggc ccgcgcgcca cccctctggc gccacccgtgg
61 ttgagcccggt gacgtttaca ctattcata aaacgcttgt tataaaagca gtggctgcgg
121 cgcctcgtac tccaaccgca tctgcagcga gcaactgaga agccaagact gagccggcgg
181 ccgcgccgca gcgaacgagc agtgaccgtg ctctaccaca gctctgcttc acagcgcaca
241 cctgtctccg cccctcggcc cctcgcggcg ctttgcttaa ccgccacgat gatgttctcg
301 ggcttcaacg cagactacga ggcgctatcc tcccgtgca gcagcgcgtc cccggccggg
361 gatagcctct cttactacca ctaccccgca gactccttct ccagcatggg ctgcctgtc
421 aacgcgcagg taaggctggt ttcccgctgc cgccggggccg ggggcttggg gtccgcggagg
481 aggagacacc gggcgggagc ctccagtaga tgagtagggg gctcccttgt gcctggaggg
541 aggctgccgt ggccggagcg gtgcggcgctc gggggctcgg gacttgctct gagcgcacgc
601 acgcttgcca tagtaagaat tggttccccc ttcgggaggc aggttcgttc tgagcaacct
661 ctggtctgca ctccaggacg gatctctgac attagctgga gcagacgtgt cccaagcaca
721 aactcgctaa ctagagcctg gcttcttcgg ggaggtggca gaaagcggca atccccctc
781 ccccggcagc ctggagcagc gaggagggat gagggaggag ggtgcagcgg gcgggtgtgt
841 aaggcagttt cattgataaa aagcaggttc attctggaga ctccggagcg gcgcctgcgt
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961 ataacgggaa cgcagcggca ggatggaaga gacaggcact gcgctgcgga atgcctggga
1021 ggaaaagggg gagaccttcc atccaggatg agggacattt aagatgaaat gtccgtggca
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1381 accatgacag gaggccgagc gcagagcatt ggcaggaggg gcaagggtgga acaggtgagg
1441 aactctagcg tactcttctt gggaatgtgg gggctgggtg ggaagcagcc ccggagatgc
1501 aggagcccgag tacagaggat gaagccactg atggggctgg ctgcacatcc gtaactggga
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1681 ctcttgctga ggatcttatt ttaaattgcaa gtcacaccta ttctgcaact gcaggtcaga
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2581 ccagctgcac tgcttacacg tcttctctcg tcttccacta ccccgaggct gactccttcc
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2761 acaagtgcc ctgcccagc tgggtgatta cagagaggag aaacacatct tccctagagg
2821 gttcctgtag acctaggag gacctatct gtgcgtgaaa cacaccaggc tgtgggcctc
2881 aaggacttga aagcatccat gtgtggactc aagtccttac ctctccgga gatgtagcaa
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3181 aatgaccaat attatactaa gaaaagatac gactttattt tctggtagat agaaataaat
3241 agctatatcc atgtactgta gttttcttc aacatcaatg ttctattgta tgttactgat
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3361 attgtgtttt taattttatt attaagatgg attctcagat atttatatt ttattttatt
3421 tttttctacc ttgaggtctt ttgacatgtg gaaagtgaat ttgaatgaaa aatttaagca
3481 ttgtttgctt attgttccaa gacattgtca ataaaagcat ttaagttgaa tgcgaccaac
3541 cttgtgctct tttcattctg gaagt
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(2) INFORMATION FOR SEQ ID NO:2660:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2660

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1 cctcgagggtc gaagcttatt taaaagcata ttttccaatg cctgcttttag ctgtggaaaa
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121 gctgtgactg gatgggtctt taaggttggt tcccttgaat aaagaatgag ggaattccac
181 caggggaagg agagtagacc aaacatttgg tgaacagaaa gggagacaga gtcttttagt
241 ttattcccca aatattcctg gagagncctt tgagacacct ggtaggatta tagtgatcta
301 aagaggcatg gccatgtgac tgcctnngcc aatgatgtat gggcagaagt gatgtgtgcc
361 ataagtggat gctctgacag acatgatgtt ccgagttcct tccccacagn caggatagct
421 gtgaaaaggg gtatcaacac gaggcctcct tcagcctgag cccttttagt actacaatga
481 gcagagctac cctgccaaac tacaacggtc atgtagnaga aatgaccaac tttcactgga
541 ataagncact gatatgttag ggttgnttgg tagggcagca taacactnnc tntcctgaca
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721 gcaggggctg taacatgaac agatttgtta tttttttgga tgaaatatgc tattctctca
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901 tgaacggagt tacagtcaga ggatcaggca agaaaatttc ttctatgcca caagcgctat
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1321 tgaggaagca actggatctt gtcactactg tatacctacc taccacccc cctccccagc
1381 tcagtgcctg gctcacagta ggctttcagt taccctctgc agatcagtga aagctaggtg
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1501 tgaacactca aagccgcaaa taccttaggg ctgggggcaa tgaaccaca gctgaattcc
1561 aagttcagaa gcagcgaagt ctgaatttag aacctaggac ttaactgct gcaggtccaa
1621 ctccaagccc cagttttaga cagaggcttg gaaagatct gacttctaac ccggttcccc
1681 ctccccctct cccctcgatg cttctcacag gaaagtacac ctggtcctgc caaatcgcac
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2761 cctgcatcc ccgcacccc cgtccgcagc cgtgaacttg agccccctc catcagaggt
2821 tgcgagcgtc gccgctcggc agccaccgtc actagacagt caaaccacaa gacgtcagcc
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3121 ttggggtgac atcatgggct attttttagg gttgactggt agcagataag tgttagctc
3181 gggctgata agggctca

```

(2) INFORMATION FOR SEQ ID NO:2661:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2661

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(2) INFORMATION FOR SEQ ID NO:2662:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2662

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(2) INFORMATION FOR SEQ ID NO:2663:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2663

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(2) INFORMATION FOR SEQ ID NO:2664:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2664

1 cagtgaagctg tgattgcacc actgcaattt agcctgagtg acagaatgaa aaaaaattt
 61 ttttaaagga aaacacaaaa agaataatgct gtcaacaggg atggaggagaa gaccacctt
 121 actgctatac acatttgtac ctttagatg ttgatcaata tgaatatatt atcacacag
 181 acacacacac agacacacac acacacacaa acaatacaat ttaatatcct aagaggatat
 241 tgacattaga caggtacaaa agctctagaa atgaggactt tcctcagtg tgactttttt
 301 caccacacaaa gtcactcagg catcctgaca agggtaagtg aggggagcct ccttggaaaa

361 taaactcact tggatagtga actcctgcac atacctcaaa gcccatctga aatgtccccc
421 cctacaggaa gttttccctg accctccaag aagcagagtt ctatttcact ggggaaaaaca
481 tttcttcttc tttttttttt tccctgccct gcacatgagc tagaaaaacat ttcattgaac
541 tgggagtttc tgtgtctggg tctgtccctc cccatttcta cttcccccctc ctcagcatgg
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661 actgataaac gcatggccaa aagtgaactg gggatgaggt ccaagacatc tgcggtgggg
721 ggttctccag accttagtgt tcttccacta caaagtgggt ccaacagaga aaggtctgtg
781 ttcaccaggt ggccctgacc ctgggagagt ccagggcagg gtgcagctgc attcatgctg
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961 aagggggggc tgaagtgggg aaaggcagg gccagataaa aagccagctc cagcaggcgc
1021 tgctcactcc tccccatcct ctccctctgt cctctgtcc ctctgacct gcactgtccc
1081 agcaccatg

(2) INFORMATION FOR SEQ ID NO:2665:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2665

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181 caaagtgggt ccaacagaga aaggtctgtg ttcaccaggt ggccctgacc ctggagagtc
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301 atgacatgtt ggcccaggg actgaaaagc ttaggaaatg gtattgagaa atctggggca
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1261 cctggagggt accatcacc ccaggttccct ctacgggaag aaagtggagg gaactgcctt
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2881 catgaatata tttttgaaag actccatcac cactgtggag attctggtg tcagcatgtc
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(2) INFORMATION FOR SEQ ID NO:2666:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2666

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421 gtgctggta gcctgcagag cgggtacctc tcatccaga cagacaagac catctacacc
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541 cggacgggtca tgggtcaacat tgagaacccg gaaggcatcc cgggtcaagca ggactccttg
601 tcttctcaga accagcttgg cgtcttgccc ttgtcttggg acattccgga actcgtcaac
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4921 atcatcgagg aggacacttg ggtggagcac tggcctgagg aggacgaatg ccaagacgaa
4981 gagaaccaga aacaatgcca ggacctcggc gccttcaccg agagcatggt tgcctttggg
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(2) INFORMATION FOR SEQ ID NO:2667:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2667

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(2) INFORMATION FOR SEQ ID NO:2668:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2668

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2701 gacatcgatg tttcttcaaa gcataaagggt gccttacata attataaaat gacagacaag

2761 aatttccttg ggaggccagt agaggtgctt ctcaatgatg acctcattgt cagtacagga
2821 tttggcagtg gcttggctac agtacatgta acaactgtag ttcacaaaac cagtacctgt
2881 gaggaagttt gcagctctta tttgaaaatc gatactcagg atattgaagc atcccactac
2941 agaggctacg gaaactctga ttacaaacgc atagtagcat gtgccagcta caagcccagc
3001 agggaagaat catcatctgg atcctctcat gcggtgatgg acatctcctt gcctactgga
3061 atcagtgcaa atgaagaaga cttaaaagcc cttgtggaag ggggtggatca actattcact
3121 gattaccaa tcaaagatgg acatgttatt ctgcaactga attcgattcc ctccagtgtat
3181 ttcctttgtg tacgattccg gatatttgaa ctctttgaa ttgggtttct cagtccctgcc
3241 actttcacag tgtacgaata ccacagacca gataaacagt gtaccatgtt ttatagcact
3301 tccaatatca aaattcagaa agtctgtgaa ggagccgcgt gcaagtgtgt agaagctgat
3361 tgtgggcaaa tgcaggaaga attggatctg acaatctctg cagagacaag aaaacaaaca
3421 gcatgtaaac cagagattgc atatgcttat aaagtttagc tcacatccat cactgtagaa
3481 aatgtttttg tcaagtacaa ggcaaccctt ctggatatct acaaaactgg ggaagctgtt
3541 gctgagaaag actctgagat taccttcatt aaaaaggtaa cctgtactaa cgctgagctg
3601 gtaaaaggaa gacagtactt aattatgggt aaagaagccc tccagataaa atacaatttc
3661 agtttcaggt acatctaccc tttagattcc ttgacctgga ttgaatactg gcctagagac
3721 acaacatgtt catcgtgtca agcattttta gctaatttag atgaatttgc cgaagatate
3781 tttttaaatg gatgctaaaa ttcttgaagt tcagctgcat acagtttgca cttatggact
3841 cctgtttgtg aagtctgtt tttgttttc ttctttttt aaacattcat agctggtctt
3901 atttgtaaa ctcactttac ttagaattag tggcacttgc ttttattaga gaatgatttc
3961 aaatgctgta actttctgaa ataacatggc cttggagggc atgaagacag atactcctcc
4021 aaggttattg gacaccgga acaataaatt ggaacacctc ctcaaacctt ccactcagga
4081 atgtttgctg gggccgaaa aacagtcctat tgaaagggag tattacaaaa acatggcctt
4141 tgcttgaag aaaataccaa ggaacaggaa actgatcatt aaagcctgag tttgctttc

(2) INFORMATION FOR SEQ ID NO:2669:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2669

1 ctacctcaa ccatggcct tttgggaata cttgttttt taatcttctt ggggaaaacc
61 tggggacagg agcaaacata tgtcatttca gcacaaaaa tattcctgtt tggagcatct
121 gaaaatattg tgattcaagt ttatggatac actgaagcat ttgatgcaac aatctctatt
181 aaaagttatc ctgataaaaa atttagttac tctcaggcc atgttcattt atcctcagag
241 aataaattcc aaaactctgc aatcttaaca atacaaccaa acaattgcc tggaggacaa
301 aaccagttt cttatgtgta tttggaagtt gtatcaaagc atttttcaaa atcaaaaaga
361 atgccaataa cctatgacaa tggatttctc ttcatccta cagacaaacc tgtttatact
421 ccagaccagt cagtaaaagt tagagtttat tctgtgaatg acgacttgaa gccagccaaa
481 agagaaactg tcttaacctt catagatcct gaaggatcag aagttgacat ggtagaagaa
541 attgatcata ttggaattat ctcttttctt gacttcaaga ttccgtctaa tcctagatat
601 ggtatgtgga cgatcaagge taaatataaa gaggactttt caacaactgg aaccgcatat
661 tttgaagtta aagaatatgt cttgccacat ttttctgtct caatcgagcc agaataaat
721 ttcatgtgtt acaagaactt taagaatttt gaaattacta taaaagcaag atatttttat
781 aataaagtag tcaactgaggc tgacgtttat atcacatttg gaataagaga agacttaaaa
841 gatgatcaaa aagaatgat gcaaacagca atgcaaaaaca caatgttgat aaatggaatt
901 gctcaagtca catttgattc tgaacagca gtcaaagaac tgtcatacta cagtttagaa
961 gatttaaaaca acaagtacct ttatattgct gtaacagtca tagagtctac aggtggattt
1021 tctgaagagg cagaaatacc tggcatcaaa tatgtcctct ctccctacaa actgaatttg
1081 gttgctactc ctcttttctt gaagcctggg attccatata ccatcaaggt gcaggttaaa
1141 gattcgcttg accagttggt agggaggatc ccagtaatac tgaatgcaca acaattgat
1201 gtaaaccaag agacatctga cttggatcca agcaaaagtg taacacgtgt tgatgatgga
1261 gtagcttctt ttgtgcttaa tctcccatct ggagtgacgg tgctggagtt taatgtcaaa
1321 actgatgctc cagatcttcc agaagaaaat caggccaggg aagggtaccg agcaatagca
1381 tactcatctc tcagccaaaag ttacctttat attgattgga ctgataacca taaggctttg
1441 ctagtgggag aacatctgaa tattattgtt acccccaaaa gcccatatat tgacaaaata
1501 actcactata attacttgat tttatccaag ggcaaaatta tccatttttg cagggggag
1561 aaattttcag atgcatctta tcaaagtata aacattccag taacacagaa catggttctt
1621 tcatcccgac ttctggtcta ttatctgtc acaggagaac agacagcaga attagtgtct
1681 gattcagttc ggttaaata tgaagaaaaa tgtggcaacc agctccaggt tcatctgtct
1741 cctgatgcag atgcataatc tccaggccaa actgtgtctc ttaatatggc aactggaatg
1801 gattcctggg tggcattagc agcagtggac agtgcgtgtg atggagtcca aagaggagcc
1861 aaaaagccct tggaaagagt atttcaattc ttagagaaga gtgatctggg ctgtggggca
1921 ggtgggtggc tcaacaatgc caatgtgttc cacctagctg gacttacctt cctcactaat
1981 gcaaatgcag atgactcca agaaaatgat gaaccttgta aagaaattct caggccaaga
2041 agaacgctgc aaaagaagat agaagaaata gctgctaaat ataaacattc agtagtgaag
2101 aaatgttgtt acgatggagc ctgcgttaat aatgatgaaa cctgtgagca gcgagctgca
2161 cggattagtt tagggccaag atgcatacaa gctttcactg aatgttgtgt cgtcgcaagc

2221 cagctccgtg ctaatatctc tcataaagac atgcaattgg gaaggctaca catgaagacc
2281 ctgttaccag taagcaagcc agaaattcgg agttattttc cagaagactg gttgtgggaa
2341 gttcatcttg ttcccagaag aaaacagttg cagtttgccc tacctgattc tctaaccacc
2401 tgggaaattc aaggcattgg catttcaaac actggtatat gtgttctga tactgtcaag
2461 gcaaagggtg tcaaagatgt cttcctggaa atgaatatac catattctgt tgtacgagga
2521 gaacagatcc aattgaaagg aactgtttac aactatagga cttctgggat gcagttctgt
2581 gttaaaaatgt ctgctgtgga gggaaatctgc acttcggaaa gccagtcac tgatcatcag
2641 ggcacaaagt cctccaaatg tgtgcgccag aaagttagagg gctcctccag tcaacttggtg
2701 acattcactg tgcttctctt ggaaattggc cttcacaca tcaatttttc actggagact
2761 tggtttgga aagaaatctt agtaaaaaca ttacgagtgg tgccaagagg tgtcaaaagg
2821 gaaagctatt ctggtgttac tttggatcct aggggtattt atggtaccat tagcagacga
2881 aaggagtcc catacaggat acccttagat ttggtccca aaacagaaat caaaaggatt
2941 ttgagtgtaa aaggactgct tgtaggtgag atcttgtctg cagttctaag tcaggagggc
3001 atcaatatcc taaccacact ccccaaaggg agtgcagagg cggagctgat gagcgttgtc
3061 ccagtattct atgtttttca ctacctgga acaggaaatc attggaacat ttttcattct
3121 gaccattaa ttgaaaagca gaaactgaag aaaaaattaa aagaagggat gttgagcatt
3181 atgtcctaca gaaatgctga ctactcttac agtgtgtgga aggggtggaag tgctagcact
3241 tggttaacag cttttgcttt aagagtactt ggacaagtaa ataaatcgt agagcagaac
3301 caaaattcaa tttgtaattc tttattgtgg ctagttaga attatcaatt agataatgga
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3421 gcccgagaga acagcttata tcttacagcc tttactgtga ttggaattag aaaggctttc
3481 gatatatgcc ccttggtgaa aatcgacaca gctctaatta aagctgacaa ctttctgctt
3541 gaaaatacac tgccagccca gagcaccttt acattggcca tttctgcgta tgctctttcc
3601 ctgggagata aaactcacc cagtttctgt tcaattgttt cagctttgaa gagagaagct
3661 ttggttaaag gtaatccacc catttatcgt ttttgaaaag acaatcttca gcataaagac
3721 agctctgtac ctaacactgg tacggcacgt atggtagaaa caactgccta tgctttactc
3781 accagtctga acttgaaaga tataaattat gtaaccag tcatacaatg gctatcagaa
3841 gagcagaggt atggagggtg cttttattca acccaggaca ccatcaatgc cattgagggc
3901 ctgacggaat attcactcct ggtaaacaac ctccgcttga gtatggacat cgatgtttct
3961 tacaagcata aagggtgcctt acataattat aaaatgacag acaagaattt ccttgggagg
4021 ccagttagagg tgcttctcaa tgatgacctc attgtcagta caggatttgg cagtggcttg
4081 gctacagtac atgtaacaac tgtagttcac aaaaccagta cctctgagga agtttgcagc
4141 ttttatttga aaatcgatac tcaggatatt gaagcatccc actacagagg ctacggaaac
4201 tctgattaca aacgcatagt agcatgtgcc agctacaagc ccagcaggga agaatcatca
4261 tctggatcct ctcatgcggt gatggacatc tccttgcccta ctggaatcag tgcaaatgaa
4321 gaagacttaa aagcccttgt ggaagggtg gatcaactat tcaactgatta ccaaatcaaa
4381 gatggacatg ttattctgca actgaattcg attcctcca gtgatttctt ttgtgtacga
4441 ttccggatat ttgaactctt tgaagtggg tttctcagtc ctgccacttt cacagtttac
4501 gaataccaca gaccagataa acagtgtacc atgttttata gcacttccaa tatcaaaatt
4561 cagaaagtct gtgaaggagc cgcgtgcaag tgtgtagaag ctgattgtgg gcaaatgcag
4621 gaagaatttg atctgacaat ctctgcagag acaagaaaac aaacagcatg taaaccagag
4681 attgcatatg cttataaagt tagcatcaca tccatcactg tagaaaatgt ttttgtcaag
4741 tacaaggcaa ccttcttgg tatctacaaa actggggaag ctggtgctga gaaagactct
4801 gagattacct tcattaaaaa ggtaacctgt actaacgctg agctggtaaa aggaagacag
4861 tacttaatta tgggtaaaga agccctccag ataaaaatac atttcagttt cagggtacac
4921 tacccttttag attccttgac ctggattgaa tactggccta gagacacaac atgttcatcg
4981 tgtcaagcat ttttagctaa tttagatgaa ttgcccgaag atatctttt aaatggatgc
5041 taaaattcct gaagttcagc tgcatacagt ttgcacttat ggactcctgt tgttgaagtt
5101 cgttttttg ttttcttctt tttttaaaca ttcataagctg gtcttatttg taaagctcac
5161 tttacttaga attagtggca cttgctttta tttagaatg atttcaaatg ctgtaacttt
5221 ctgaaataac atggccttgg agggcatgaa gacagatact cctccaaggt tattggacac
5281 cggaaacaat aaattggaac acctcctcaa acctaccact caggaatgtt tgctggggcc
5341 gaaagaacag tccattgaaa gggagtatta caaaaacatg gcctttgctt gaaagaaaat
5401 accaaggaaac aggaaactga tcattaaagc ctgagtttgc tttc

(2) INFORMATION FOR SEQ ID NO:2670:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2670

1 ctacctcaa ccatgggctt tttgggaata ctttgtttt taatcttctt ggggaaaacc
61 tggggacagg agcaaacata tgtcatttca gcacaaaaa tattcctgtg ttgagcatct
121 gaaaatattg tgattcaagt ttatggatac actgaagcat ttgatgcaac aatctctatt
181 aaaagtattc ctgataaaaa atttagttac tcttcaggcc atgttcattt atcctcagag
241 aataaattcc aaaactctgc aatcttaaca atacaacca aacaattgcc tggaggacaa
301 aacccagttt cttatgtgta tttggaagtt gtatcaaaagc atttttcaaa atcaaaaaga
361 atgccaataa cctatgacaa tggatttctc ttcattcata cagacaaaac tgtttatact

421 ccagaccagt cagtaaaagt tagagtttat tcgttgaatg acgacttgaa gccagccaaa
481 agagaaactg tcttaacctt catagatcct gaaggatcag aagttgacat ggtagaagaa
541 attgatcata ttggaattat ctcttttctt gacttcaaga ttccgtctaa tcttagatat
601 ggtatgtgga cgatcaaggc taaatataaa gaggactttt caacaactgg aaccgcatat
661 tttgaagtta aagaatatgt cttgccacat ttttctgtct caatcgagcc agaataaat
721 ttcattgggtt acaagaactt taagaatttt gaaattacta taaaagcaag atatttttat
781 aataaagtag tcaactgaggc tgacgtttat atcacatttg gaataagaga agacttaaaa
841 gatgatcaaa aagaaatgat gcaaacagca atgcaaaaaca caatgttgat aaatggaatt
901 gctcaagtca cttttgatct tgaacacagca gtcaaaagaac tgtcatacta cagtttagaa
961 gatttaaaaca acaagtacct ttatatgtct gtaacagtca tagagtctac aggtggattt
1021 tctgaagagg cagaaatacc tggcatcaaa tatgtcctct ctccctacaa actgaatttg
1081 gttgtactct ctcttttctt gaagcctggg attccatctc ccatcaaggt gcaggttaaa
1141 gattcgtctg accagttggg aggaggagtc ccagtaatac tgaatgcaca acaattgat
1201 gtaaaccagg agacatctga cttggatcca agcaaaagtg taacacgtgt tgatgatgga
1261 gtagcttctt ttgtgtctaa tctccatctt ggagtgcagg tegtggagt taatgtcaaa
1321 actgatgctc cagatcttcc agaagaaaat caggccaggg aaggttaccg agcaatagca
1381 tactcatctc tcagccaaag ttacctttat attgattgga ctgataacca taaggctttg
1441 ctagtgggag aacatctgaa tattattgtt acccccaaaa gcccatatat tgacaaaata
1501 actcactata attacttgat tttatccaag ggcaaaatta tccatttttg cacgaggag
1561 aaattttcag atgcatctta tcaaagtata aacattccag taacacagaa catggttctt
1621 tcatcccgac ttctgggtct tgaagaaaaa tgtggcaacc agctccaggt tcatctgtct
1681 gattcagtct ggttaaatat tgaagaaaaa tgtggcaacc agctccaggt tcatctgtct
1741 cctgatgcag atgcatatct tccaggccaa actgtgtctc ttaatatggc aactggaatg
1801 gattcctggg tggcattagc agcagtggac agtgcgtgtg atggagtcca aagaggagcc
1861 aaaaagccct tggaaagagt atttcaattc ttagagaaga gtgatctggg ctgtggggca
1921 ggtggtggcc tcaacaatgc caatgtgttc cacctagctg gacttacctt cctcactaat
1981 gcaaatgcag atgactccca agaaaatgat gaacctgtta aagaaattct caggccaaga
2041 agaacgctgc aaaagaagat agaagaaaata gctgctaatt ataaacattc agtagtgaag
2101 aaatgttgtt acgatggagc ctgctgttaat aatgatgaaa cctgtgagca gcgagctgca
2161 cggattagtt tagggccaag atgcatcaaa gctttcactg aatgttgtgt cgtcgcaagc
2221 cagctccgtg ctaatatctc tcataaagac atgcaattgg gaaggctaca catgaagacc
2281 ctgttaccag taagcaagcc agaaattcgg agttattttc cagaaagctg gttgtgggaa
2341 gttcatcttg ttcccagaag aaaacagttg cagtttgccc tacctgattc tctaaccacc
2401 tgggaaattc aaggcattgg catttcaaac actggtatat gtgttgctga tactgtcaag
2461 gcaaagggtg tcaaagatgt cttcctggaa atgaatatac catattctgt tgtacgagga
2521 gaacagatcc aattgaaagg aactgtttac aactatagga cttctgggat gcagttctgt
2581 gttaaaatgt ctgctgtgga gggaatctgc acttcggaaa gccagtcac tgatcatcag
2641 ggcacaaagt cctccaaatg tgtcgccag aaagtagagg gctcctccag tcaatttttc actggagact
2701 acattcactg tgcttctctt ggaaattggc cttcacaaca tcaatttttc actggagact
2761 tggtttggaa aagaaatctt agtaaaaaca ttacgagtgg tggcagaagg tgtcaaaaagg
2821 gaaagctatt ctggtgttac tttggatcct aggggtattt atggtaccat tagcagacga
2881 aaggagttcc catacaggat acccttagat ttgggtccca aaacagaaat caaaaggatt
2941 ttgagtgtaa aaggactgct ttaggtgag atcttgtctg cagttctaa gtcaggaaggc
3001 atcaatatcc taaccacact ccccaaaagg agtgagagg cggagctgat gagcgttctc
3061 ccagttattc atgtttttca ctacctggaa acaggaaatc attggaacat ttttattctt
3121 gaccatttaa ttgaaaagca gaaactgaag aaaaaattaa aagaagggat gttagacatt
3181 atgtcctaca gaaatgctga ctactcttac agtgtgtgga aggggtggaag tgctagcact
3241 tggtttaacag cttttgcttt aagagtactt ggacaagtaa ataaatacgt agagcagaac
3301 caaaattcaa tttgtaattc tttattgtgg ctagttaga attatcaatt agataatgga
3361 tctttcaagg aaaattcaca gtatcaacca ataaaattac aggggtacct gcctgttgaa
3421 gcccagagaga acagcttata tcttacagcc tttactgtga ttggaattag aaaggctttc
3481 gatatatgcc ccctggtgaa aatcgacaca gctctaatta aagctgacaa ctttctgctt
3541 gaaaatacac tgccagccca gagcaccttt acattggcca tttctgcgta tgctctttcc
3601 ctgggagata aaactcacc acagtttctg tcaattgttt cagctttgaa gagagaagct
3661 ttggttaaag gtaatccacc catttatcgt ttttggaaa acaatcttca gcataaagac
3721 agctctgtac ctaacactgg tacggcacgt atggtagaaa caactgccta tgctttactc
3781 accagtctga acttgaaaga tataaattat gttaaccag tcatcaaatg gctatcagaa
3841 gagcagaggt atggaggtgg cttttattca acccaggaca ccatcaatgc cattgagggc
3901 ctgacggaat attcactcct ggtaaaaca ctcgcttga gtatggacat cgatgtttct
3961 tacaagcata aagtgccctt acataattat aaaatgacag acaagaattt ccttgggagg
4021 ccagtagagg tgcttctcaa tgatgacctc attgtcagta caggatttgg cagtggttg
4081 gctacagtac atgtaacaac ttagattcac aaaaccagta cctctgagga agtttcagc
4141 ttttatttga aaatcgatac tcaggatatt gaagcatccc actacagagg ctacggaaac
4201 tctgattaca aacgcatagt agcatgtgcc agctacaagc ccagcaggga agaattcatca
4261 tctggatcct ctcatgcggt gatggacatc tccttgccca ctggaatcag tgcaaatgaa
4321 gaagacttaa aagcccttgt ggaaggggtg gatcaactat tcaactgatta ccaaatcaaa
4381 gatggacatg ttattctgca actgaattcg attccttcca gtgatttctt ttgtgtacga
4441 ttccggatat ttgaactctt tgaagttggg tttctcagtc ctgccacttt cacagtttcc

4501 gaataccaca gaccagataa acagtgtacc atgttttata gcacttccaa tatcaaaatt
4561 cagaaagtct gtgaaggagc cgcgtgcaag tgtgtagaag ctgattgtgg gcaaattgcag
4621 gaagaattgg atctgacaat ctctgcagag acaagaaaac aaacagcatg taaaccagag
4681 attgcatatg cttataaagt tagcatcaca tccatcactg tagaaaatgt tttgtcaag
4741 tacaaggcaa ccttctcgga tatctacaaa actggggaag ctgttgctga gaaagactct
4801 gagattacct tcattaaaaa ggtaacctgt actaacgctg agctggtaaa aggaagacag
4861 tacttaatta tgggtaaaga agccctccag ataaaaatac atttcagttt caggtacatc
4921 tacccttttag attccttgac ctggattgaa tactggccta gagacacaac atgttcatcg
4981 tgtcaagcat ttttagctaa ttttagatgaa tttgccgaag atatctttt aaatggatgc
5041 taaaattcct gaagttcagc tgcatacagt ttgcacttat ggactcctgt tgttgaagtt
5101 cgtttttttg ttttcttctt tttttaaaca ttcatactgt gtcttatttg taaagctcac
5161 tttacttaga attagtggca ctgtctttta ttagagaatg atttcaaag ctgtaacttt
5221 ctgaaataac atggccttgg agggcatgaa gacagatact cctccaaggt tattggacac
5281 cggaaacaat aaattggaac acctctcaa acctaccact caggaatgtt tgctggggcc
5341 gaaagaaacag tccattgaaa gggagtatta caaaaacatg gcctttgctt gaaagaaaat
5401 accaaggaac aggaaactga tcattaaagc ctgagtttgc tttc

(2) INFORMATION FOR SEQ ID NO:2671:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2671

1 cgtgttgatg atggagtagc ttcctttgtg cttaatctcc catctggagt gacggtgctg
61 gagtttaatg tcaaaactga tgctccagat ctccagaag aaaatcaggc caggaaggt
121 taccgagcaa tagcactatc atctctcagc caaagttacc tttatattga ttggactgat
181 aaccataagg ctttgctagt gggagaacat ctgaatatta ttgttaccac caaaagccca
241 tatattgaca aaataactca ctataattac ttgattttat ccaagggcaa aattatccac
301 tttggcacga gggagaaatt ttcagatgca tcttatcaaa gtataaacat tccagtaaca
361 cagaacatgg ttccttcacg ccgacttctg gtctattata tgcgtcacagg agaacagaca
421 gcagaattag tgtctgattc agtctggtta aatattgaag aaaaatgtgg caaccagctc
481 caggttcacg tgtctcctga tgcagatgca tattctccag gccaaaactgt gtctcttaat
541 atggcaactg gaatggattc ctgggtggca ttagcagcag tggacagtgc tgtgtatgga
601 gtccaaagag gagccaaaaa gcccttgga aagatatttc aattcttaga gaagagtgat
661 ctgggctgtg gggcaggtgg tggcctcaac aatgccaatg tgttccacct agctggactt
721 accttctca ctaatgcaaa tgcagatgac tcccaagaaa atgatgaacc ttgtaagaa
781 attctcaggc caagaagaac gctgcaaaag aagatagaag aaatagctgc taaatataaa
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(2) INFORMATION FOR SEQ ID NO:2672:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2672

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143041 ctcctgcag ggcagggtc tgaagctt

(2) INFORMATION FOR SEQ ID NO:2673:

(1) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2673

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121 gaggtgggag aatgacttga gcccgtagt tgaggctgca gtgagccgag atcacaccac
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241 aaccatcaaa atgtttttga cagcagtcac gccattttac atttctgcca gcaatgtgca
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(2) INFORMATION FOR SEQ ID NO:2674:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2674

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1 gatcttggct cactacaacc tccatctggt gggttcaagc aattcttctg cctcagcctc
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1441 gagtgtctgga aggatgaagg attcctgcat cactgtgatg gccatggcgc tgctgtctgg
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(2) INFORMATION FOR SEQ ID NO:2675:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2675

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121 ctggtgtgctg tctctctca ggagtgcacg aagttcaagg tcagcagctg ccgggaatgc
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(2) INFORMATION FOR SEQ ID NO:2676:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2676

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121 ctgaacttca cagggccggg ggatcctgac tccattcgct gcgacaccgg gccacagctg
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301 ccaggccagg cagcagcgtt caacgtgacc ttccggcggg ccaagggcta ccccatcgac
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2161 ctgagcgacc tccgggagta caggcgcttt gagaaggaga agctcaagtc ccagtgaac
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(2) INFORMATION FOR SEQ ID NO:2677:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2677

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121 gaggtgggag aatgactcga gcccgtagt tgaggctgca gtgagccgag atcacaccac
181 tccagcctag gcaagagtga gaccctctct caaaaaaaaa aaaaaaaaaa aaaaaaaaaa
241 aaccatcaaa atgttttgca cagcagtcac gccattttac atttctgcca gcaatgtgca
301 ccaggcttcc agtttcttca catcttctact aactcttatt tcccttgcct taaactctaa
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(2) INFORMATION FOR SEQ ID NO:2678:

(1) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2678

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781 gagctgaaga ttctggattt tggactggct cggcacacag atgatgaaat gacaggctac
841 gtggccacta ggtggtacag ggctcctgag atcatgctga actggatgca ttacaaccag
901 acagttgata tttggtcagt gggatgcata atggccgagc tgttgactgg aagaacattg
961 tttcctggta cagaccatat tgatcagttg aagctcattt taagactcgt tggaaaccca
1021 ggggtcagc ttttaagaa aatctctca gagtctgaa gaaactatat tcagtcttctg
1081 actcagatgc cgaagatgaa ctttgcaat gtatttattg gtgccaatcc cctggctgtc
1141 gacttgctgg agaagatgct tgtattggac tcagataaga gaattacagc ggcccaagcc
1201 cttgcacatg cctactttgc tcagtaccac gatcctgatg atgaaccagt ggccgatcct
1261 tatgatcagt ccttgaaag caggacctc cttatagatg agtgaaaaag cctgacctat
1321 gatgaagtca tcagctttgt gccaccaccc cttgaccaag aagagatgga gtctctgagca
1381 cctggtttct gttctgttga tcccacttca ctgtgagggg aaggcctttt cagggaact
1441 ctccaaatat tattcaagtg cctctgttg cagagatttc ctccatggtg gaagggggtg
1501 tgcgtgctg tgcgtgctg ttagtgtgtg tgcatgtgt

(2) INFORMATION FOR SEQ ID NO:2679:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2679

1 tggttaacgc cagggttttc ccagtcacga acgttgtaaa acgacggcca gtgccaagct
61 aaaattaacc ttactaaag ggaataagct tgcggccgct tcgggtttcc ggagggggccg
121 gagggcgggc gagggcgctc cgtgcgcgcc gcccgccggc cgttggttcc ccggggcgggg
181 gaggggccgt gcgcagcctg ggtcggggtc gggccggggt cggcacctgg gacatccctg
241 agggaaaggg cgggagcggg agcgccccag cggccggcgg cggggcgggc gagcggacga
301 gcggcgccga gccggcccga ggccgcgccg gagggagccc cgtccccggt cgtgggggca
361 ccgccgcag gctctgcggg gtgggcagct cccgggcctg ccatgagctc tccgccgccc
421 gccgcagtg gcttttaccg ccaggagggt accaagacgg cctgggaggt gcgcgccgtg
481 taccgggacc tgcagcccgt gggtcgggc gcctacggcg cgtgtgtctc ggccgtggac
541 ggccgcaccg gcgctaaggt ggcatcaag aagctgtatc ggcccttcca gtccgagctg
601 ttgcgaagc gcgcctaccg cgagctgcgc ctgctcaagc acatgcgcca cgagaacgtg
661 atcgggctgc tggacgtatt cactcctgat gagaccctgg atgactcac ggacttttac
721 ctggtgatgc cgttcatggg caccgacctg ggcaagctca tgaaacatga gaagctaggg
781 gaggaccgga tccagttcct cgtgtaccag atgctgaagg ggctgaggta tatccacgt
841 gccggcatca tccacagaga cctgaagccc ggcaacctgg ctgtgaacga agactgtgag
901 ctgaagatcc tggacttcgg cctggccagg caggcagaca gtgagatgac tgggtacgtg
961 gtgaccgggt ggtaccgggc tcccagggtc atcttgaaat ggatgcgcta cagcgagacg
1021 gtggacatct ggtccgtggg ctgcatcatg gcggagatga tcacaggcaa gacgtgttc
1081 aagggcagcg accacctgga ccagctgaag gagatcatga aggtgacggg gacgcctccg
1141 gctgagtttg tgcagcggct gcagagcgat gaggccaaga acaacatgaa gggcctcccc
1201 gaattggaga agaaggattt tgctctatc ctgaccaatg caagccctct ggctgtgaa
1261 ctctggaga agatgctggt gctggacgcy gagcagcggg tgacggcagg cgaggcgctg
1321 gccatccct acttcgagtc cctgcacgac acggaagatg agccccaggt ccagaagtat
1381 gatgactcct ttgacgacgt tgaccgcaca ctggatgaat ggaagcgtgt tacttataaa
1441 gaggtgctca gtttcaagcc tccccggcag ctgggggcca ggtctccaa ggagacgcct
1501 ctgtgaagat ctctgggctc cggggtggca gtgaggacca cttcacctt

(2) INFORMATION FOR SEQ ID NO:2680:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2680

1 ggaattccgg gcccggtctt tctcccgcc gccgcccggc tggccccggg gactggcctc
61 cagctccgac tctccgagc tgaagccag cagcactttg ctgccagccg cggggggcggc
121 ggaggcgccc cggggccctc ccaggaggct ctctgggcca gagggccaga ttcggcacag
181 gccccagga gtccgtaagt aggagaggtc gcccgagacc ggccggaccc ccattccccg
241 gggcgccgccc gccgctggtc ccgcggtgac gaccgtggcg gctgcccgtg gaaaatgtct
301 caggagaggg ccacgttcta ccggcaggag ctgaacaaga caatctggga ggtgcccgag
361 cgttaccaga acctgtctcc agtgggctct ggcgcctatg gctctgtgtg tgtgtctttt
421 gacacaaaaa cgggggttacg tgtggcagtg aagaagctct ccagaccatt tcagtccatc
481 attcatgcga aaagaacctc cagagaactg cggttactta aacatatgaa acatgaaaat
541 gtgattgggtc tgttggacgt ttttacacct gcaaggctctc tggaggaatt caatgatgtg
601 tatctgggtga cccatctcat gggggcagat ctgaacaaca ttgtgaaatg tcagaagctt
661 acagatgacc atgttcagtt ccttatctac caaattctcc gaggtctaaa gtatatacat
721 tcagctgaca taattcacag ggacctaaaa cctagtaatc tagctgtgaa tgaagactgt
781 gagctgaaga ttctggattt tggactggct cggcacacag atgatgaaat gacaggctac
841 gtggccacta ggtgggtacag ggctcctgag atcatgctga actggatgca ttacaaccag
901 acagttgata tttggtcagt gggatgcata atggccgagc tgttgactgg aagaacattg
961 tttcctggta cagaccatat tgatcagttg aagctcattt taagactcgt tggaaaccca
1021 ggggctgagc ttttgaagaa aatctctcca gactctgcaa gaaactatat tcagtctttg
1081 actcagatgc cgaagatgaa ctttgcgaat gtatttattg gtgccaatcc cctggctgtc
1141 gacttgctgg agaagatgct tgtattggac tcagataaga gaattacagc ggcccaagcc
1201 cttgcacatg cctactttgc tcagtaccac gatcctgatg atgaaccagt ggccgaccc
1261 tatgatcagt cctttgaaag cagggacctc cttatagatg agtggaaaag cctgacctat
1321 gatgaagtca tcagctttgt gccaccacc cttgaccaag aagagatgga gtcctgagca
1381 cctggtttct gttctgttga tcccacttca ctgtgagggg aaggcccttt caccgggaact
1441 ctccaaatat tattcaagtg cctctgtgtg cagagatttc ctccatgggt gaaggggggtg
1501 tgcgtgcgtg tgcgtgcgtg ttagtgtgtg tgcagtgtg
1 tggttaacgc cagggttttc ccagtcacga acgttgtaaa acgacggcca gtgccaaagt
61 aaaattaacc ttactaaag ggaataagct tgcggccgct tcgggtttcc ggagggggccg
121 gagggcgggc gagggcggtc cgtgcgcgcc gcccgcgggc cgggttggtcc ccggcgggg
181 gagggcgccg gcgcagcctg ggtcgggggtc gggccggggg cggcacctgg gacatccctg
241 aggggaagggc cgggagcggg agcgccccag cggccggcgg gcggggcggg gagcgagca
301 gcggcgcgga gccggcccga ggcgcgcgcc gagggagccc cgtccccggt cgtgggggca
361 ccgcccgcag gctctgcggg gtgggcagct cccgggctg ccatgagctc tccgcccgc
421 gcccgagtg gcttttaccg ccaggaggtg accaagacgg cctgggaggt gcgcgcggtg
481 taccgggacc tgcagcccgt gggctcgggc gcctacggcg cgggtgtgctc ggccgtggac
541 gggcgaccg gcgctaaggt ggcatcaag aagctgtatc ggcccttcca gtccgagctg
601 ttcgccaagc gcgcctaccg cgagctgcgc ctgctcaagc acatgcgcca cgagaacgtg
661 atcgggctgc tggacgtatt cactcctgat gagaccctg atgacttacc ggacttttac
721 ctggtgatgc cgttcatggg caccgacctg ggcaagctca tgaacatga gaagctaggc
781 gaggaccgga tccagttcct cgtgtaccag atgctgaagg ggctgaggta tatccacgt
841 gccggcatca tccacagaga cctgaagccc ggcaacctgg ctgtgaacga agactgtgag
901 ctgaagatcc tggacttcgg cctggccagg caggcagaca gtgagatgac tgggtacgtg
961 gtgaccgggt ggtaccgggc tcccagggtc atcttgaatt ggatgcgcta caccgagacg
1021 gtggacatct ggtccgtggg ctgcatcatg gcggagatga tcacaggcaa gacgtgttc
1081 aagggcagcg accacctgga ccagctgaag gagatcatga aggtgacggg gacgctccg
1141 gctgagttt tgcagcggtc gcagagcgat gaggccaaga acaacatgaa gggcctccc
1201 gaattggaga agaaggattt tgcctctatc ctgaccaatg caagccctct ggctgtgaa
1261 ctccctggaga agatgctggt gctggacgag gagcagcggg tgacggcagg cgaggcgctg
1321 gcccattcct acttcgagtc cctgcacgac acggaagatg agccccaggt ccagaagtat
1381 gatgactcct ttgacgacgt tgaccgcaca ctggatgaat ggaagcgtgt tacttataaa
1441 gaggtgctca gcttcaagcc tcccggcag ctgggggcca ggtctccaa ggagacgct
1501 ctgtgaagat ctctgggctc cggggtggca gtgaggacca cttcacctt

(2) INFORMATION FOR SEQ ID NO:2681:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2681

1 ctcgatcaaa cttttttttt atggtacaca atagtcacag tactttttcca tataaaacag
61 gtttagtgggt ctttaatttag tttggcacat ttaatacact cccatgacca gcatcccaaa
121 tgtacctatc cgtttttatt tattgtctca gaattgtcag ttattttaata aattatgtaa
181 cttttttcct tatgctcaga tttgcacttc tttctaaaac tctgcccata cttaaagtcc
241 cagattctcc ttgaactttt ttttttgact ttccaagtac atggaactct tcactctatc
301 ctgctatata aggtgacaga atttccacta tgggatagat ggagttcaat tcctttgagt
361 ttaaaataat ctaaatataa ttattcctta tgcctgtttt ttcctctact tttgtatcca
421 aatctctttt cagacaacag aacaattaat gtctgataag gaagacaatg atgatgatca
481 cttcaaaatg aattcaggat tgtaatgtaa aattttagta ctctctcaca gtatggattc

541 taacatggct tctaaccctaa actaacatta gtagctctaa ctataaactt caaatttcag
601 tagatgcaac ctactccttt aaaatgaaac agaagattga aattattaaa ttatcaaaaa
661 gaaaatgac cagctcttta gttgaaattt catgtaagat tccatgcaat aaataggagt
721 gccataaatg gaatgatgaa atatgactag aggaggagaa aggtcctag atgagatggg
781 attttaggca tccgtgtctc atgaggaatc agttgtgtca ctaggcaaaa cagtaaaaaa
841 aaaaacctcc aagtgaagtct cttattttatt tttttcttat aagactttcta caaattgagg
901 tacctgggtg agtttttatt caggttttat gctgtcattt tctgtaatg ctaaggactt
961 aggacataac tgaattttct attttccact tcttttctgg tgtgtgtgta tatatatatg
1021 tatatatata cacacacata tacatatata tatttttttag tatctcacc tcacatgctc
1081 ctccctgagc actacccatg atagatgtta aacaaaagca aagatgaaat tccaactgtc
1141 aaaatccccc ctccatctaa ttaatccctc acccaactat gtccaaaac gagaatagaa
1201 aattagcccc aataagccca ggcaactgaa aagtaaatgc tatgtgtgtac tttgatccat
1261 ggtcacaaact cataatcttg gaaaagtggg cagaaaagac aaaagagtga actttaaaaac
1321 tcgaatttat tttaccagta tctcctatga agggctagta accaaaataa tccacgcac
1381 agggagagaa atgccttaag gcatacgttt tggacattta gcgtccctgc aaattctggc
1441 catcgccgct tctttgtcc atcagaaggc aggaaacttt atattgggtga cccgtggagc
1501 tcacattaac tatttacagg gtaactgctt aggaccagta ttatgaggag aatttacctt
1561 tcccgcctct ctttccaaga aacaaggagg ggggtgaagg acggagaaca gttattcttc
1621 tgttgaaagc aacttagcta caaagataaa ttacagctat gtacactgaa ggtagctatt
1681 tcattccaca aaataagagt tttttaaaaa gctatgtatg tatgtgtgtc atatagagca
1741 gatatacagc ctattaagcg tcgtcactaa aacataaaac atgtcagcct ttcttaacct
1801 tactcgcccc agtctgtccc gacgtgactt cctcgaccct ctaaaagcgt acagaccaga
1861 cagggcgggc gcggcgggag aggggatttc ctgcccgcgc ggacctcagg gccgctcaga
1921 ttcctggaga ggaagccaag tgtcctcttg cctccccccg gtatcccatc caaggcgatc
1981 agtcacacaac tggctctcgg aagcactcgg gcaaagactg cgaagaagaa aagacatctg
2041 gcggaaacct gtgcgcctgg ggcggtggaa ctggggagg agaggaggag atcagacagg
2101 agagtgggga ctacccctc tgcctccaaa ttggggcagc ttcctgggtt tccgattttc
2161 tcatttccgt gggtaaaaaa cctgcctccc accggcttac gcaatttttt taaggggaga
2221 ggagggaaaa atttgtggg ggtacgaaaa ggcggaaaga aacagtcatt tcgtcacatg
2281 ggcttggttt tcagtcttat aaaaaggaag gttctctcgg tttagcgacca attgtcatat
2341 gacttgagc ggcgtcagg agcacgtcca ggaactcctc agcagcgctt ccttcagctc

(2) INFORMATION FOR SEQ ID NO:2682:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2682

1 gtccaggaac tctcagcag cgctccttc agctccacag ccagacgccc tcagacagca
61 aagcctaccc ccgcgcgcgc cctgcccgc cgtgcgatg ctgcccgcgc cctgtctgt
121 gtgcgcggtc ctggcgctca gccatacagc aaatccttgc tgttcccacc catgtcaaaa
181 ccgagggtga tgtatgagtg tgggatttga ccagtataag tgcgattgta cccggacagg
241 attctatgga gaaaactgct caacaccgga atttttgaca agaataaaat tatttctgaa
301 acccactcca aacacagtgc actacatact taccacttc aagggatttt ggaacgttgt
361 gaataacatt cccttccttc gaaatgcaat tatgagttat gtgttgacat ccagatcaca
421 tttgattgac agtccaccaa cttacaatgc tgactatggc taaaaagct gggaagcctt
481 ctctaacctc tctattata ctagagccct tctcctgtg cctgatgatt gccgactcc
541 cttgggtgtc aaaggtaaaa agcagcttcc tgattcaaat gagattgtgg gaaaattgct
601 tctaagaaga aagttcatcc ctgatcccca gggctcaaac atgatgtttg cattctttgc
661 ccagcacttc acgcatcagt ttttcaagac agatcataag cgagggccag ctttccacaa
721 cgggctgggc catggggtgg acttaaatca tatttacggt gaaactctgg ctgacagcg
781 taaactgcgc cttttcaagg atggaaaaat gaaatatcag ataattgatg gagagatgta
841 tcttcccaca gtcaaagata ctacggcaga gatgatctac cctcctcaag tccctgagca
901 tctacggttt gctgtggggc aggaggtctt tgggtctgtg cctggtctga tgatgtatgc
961 cacaatctgg ctgagggaaac acaacagagt atgcgatgtg cttaaacagg agcatcctga
1021 atggggtgat gagcagttgt tccagacaag caggctaata ctgataggag agactattaa
1081 gattgtgatt gaagattatg tgcaacactt gagtggctat cacttcaaac tgaatttga
1141 ccagaacta cttttcaaca acaattcca gtacaaaaat cgtattgtct ctgaatttaa
1201 caccctctat cactggcatc ccttctgccc tgacaccttt caaattcatg accagaaata
1261 caactatcaa cagtttatct acaacaactc tatattgctg gaacatggaa ttaccagtt
1321 tgttgaaatca ttcaccaggc aaattgctgg caggggtgtg ggtggtagga atgttccacc
1381 cgagtagac aaagtatcac aggttccat tgaccagagc aggcagatga aataccagtc
1441 ttttaatgag taccgcaaac gctttatgct gaagccctat gaatcatttg aagaacttac
1501 aggagaaaaa gaaatgtctg cagagttgga agcactctat ggtgacatcg atgctgtgga
1561 gctgtatcct gcccttctgg tagaaaagcc tcggccagat gccatctttg gtgaaacctat
1621 ggtagaagtt ggagcaccat tctccttgaa aggaacttat ggtaatgtaa tatgttctcc
1681 tgccactgag aagccaagca cttttggtgg agaagtgggt tttcaaatca tcaactgc
1741 ctcaattcag tctctcatct gcaataacgt gaagggtgtt cctttactt cattcagttg

1801 tccagatcca gagctcatta aaacagtcac catcaatgca agttcttccc gctccggact
1861 agatgatatac aatcccacag tactactaaa agaacgttcg actgaactgt agaagtctaa
1921 tgatcatatt tatttattta tatgaaccat gtctattaat ttaattattt aataatattt
1981 atattaaact ccttatgtta cttaacatct tctgtaacag aagtcagtac tcctgttgcg
2041 gagaaggagag tcatacttgt gaagactttt atgtcactac tctaaagatt ttgctgttgc
2101 tgtaagttt ggaaaacagt ttttattctg ttttataaac cagagagaaa tgagttttga
2161 cgtcttttta cttgaatttc aacttatatt ataaggacga aagtāaagat gtttgaatac
2221 ttaaacacta tcacaagatg ccaaaatgct gaaagttttt acactgtcga tgtttccaat
2281 gcatcttcca tgatgcatta gaagtaacta atgtttgaaa ttttaaagta cttttgggta
2341 tttttctgtc atcaaaacaaa acaggtatca gtgcattatt aaatgaatat ttaaattaga
2401 cattaccagt aatttcattg ctacttttta aaatcagcaa tgaaacaata atttgaaatt
2461 tctaaattca tagggtagaa tcacctgtaa aagcttgttt gatttcttaa agttattaaa
2521 cttgtacata taccaaaaag aagctgtctt ggattttaa ctgtaaaatc agatgaaatt
2581 ttactacaat tgcttgtaa aatattttat aagtgtgtt cttttttcac caagagtata
2641 aaccttttta gtgtgactgt taaaacttcc ttttaaatac aaatgcaaaa tttattaagg
2701 tgggtggagcc actgcagtgt tatctcaaaa taagaatata ctgttgagat attccagaat
2761 ctgtttatat ggctggtaac atgtaaaaac ccataaacc cgccaaaagg ggctctacc
2821 ttgaacataa agcaataacc aaaggagaaa agcccaaatt attggttcca aatttaggt
2881 ttaaactttt tgaagcaaac ttttttttag cttgtgcac tgcagacctg gtactcagat
2941 tttgctatga ggtaaatgaa gtaccaagct gtgcttgaa aacgatagt tttctcagat
3001 tttctgttgt acagttaaat ttgacagtc atatacatt gcaaaagtag caatgacctc
3061 ataaaatacc tcttcaaaat gcttaaatc atttcacaca ttaattttat ctcagtcttg
3121 aagccaattc agtaggtgca ttggaatcaa gcctggctac ctgcatgctg ttccttttct
3181 tttcttcttt tagccatttt gctaagagac acagtcttct caaacacttc gtttctccta
3241 ttttgtttta ctagttttaa gatcagagtt cactttcttt ggactctgcc tatattttct
3301 tacctgaact tttgcaagt ttcaggtaaa cctcagctca ggactgctat ttagctcctc
3361 ttaagaagat taaaaaaaaa aaaaaa

(2) INFORMATION FOR SEQ ID NO:2683:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2683

1 gagctcacat taactattta cagggttaact gcttaggacc agtattatga ggagaattta
61 cctttccgc ctctcttcc aagaaacaag gagggggtga aggtacggag aacagtattt
121 cttctgttga aagcaactta gctacaaaga taaattacag ctatgtacac tgaaggtagc
181 tatttcattc cacaaaataa gagtttttta aaaagctatg tatgtatgtg ctgcatatag
241 agcagatata cagcctatta agcgtcgtca ctaaaacata aaacatgtca gcctttctta
301 acctactcg cccagctcg tcccgacgtg acttcctcga ccttctaaag acgtacagac
361 cagacacggc gccggcgccg ggagagggga ttccctgcgc ccccggaact caggccgct
421 cagattcctg gagaggaagc caagtgtcct tctgccctcc cccggtatcc catccaaggc
481 gatcagtcga gaactggctc tcggaagcgc tcgggcaaag actgccaaga agaaaagaca
541 tctggcgga aactgtgcgc ctggggcggt ggaactcggg gaggagaggg agggatcaga
601 caggagagtg gggactaccc cctctgctcc caaattggg cagcttcctg ggtttccgat
661 tttctcattt ccgtgggtta aaaaccctgc cccaccggg cttacgcaat tttttaagg
721 ggagaggagg gaaaaaattt gtgggggggt acgaaaaggc ggaaagaaac agtcattcac
781 atgggcttgg ttttcagtct tataaaaagg aaggttctct cggtagcga ccaattgtca
841 tacgacttgc agtgagcgtc aggagcacgt ccaggaactc ctcagcagcg cctccttcag
901 ctccacagcc agacgccctc agacagcaaa gcctaccccc gcgcgcgcgc ctgcccgccg
961 ctcggatgct cgcccgccgc ctgctgctgt gcgcggtcct ggcgctcagc catacagggt
1021 agtacctggc gccgcgcacc ggggactccg gttccacgca cccgggcaga gtttccgctc
1081 tgacctcctg ggtctatccc agtactccga cttctctccg aatagagaag ctacgtgact
1141 tgggaaagag cttggaccgc tagagtccga aagaactccg tggatattcc agctttccca
1201 caagcactga tcattatgag ccagttactt aaccgatctg agacactctc acctcctaaa
1261 tagggataga tgatactaatt ttgcagggtt tcattatgat aagacaggat ctgatcaata
1321 tatgtgaatt gtttatattt ggaacctttt tattgagtgg aagaagttgt tttaaatatt
1381 ctagtcaagt ctttctgct cccaggaaaag cccggattat gttttaagat aagcaaaatg
1441 tcttaaaagt aagctgtttt actttgaatt tttccctaaa tgttgattag tgtactagat
1501 ccattttaat ttggaaagtg aagtgtact tatttgaact tcttaaaaat gctaatttta
1561 acatctaaag agttaactaa gaaaagctta gtaacatgat gtaccaagtt gaatatgctg
1621 ttatccttat ttagaataga aaattgggtat tctacgtttt tatccattct aaggcagggt
1681 aaaaaattgt atttccatga ctacctatat atttcttgaa tttattattg taaagttagt
1741 tcatagtcaa acaattaaat gtttaaatta agattaagac actagagaat gatttatttg
1801 ctgtccttta attgcagcaa atccttgctg tttccacca tgtcaaaacc gaggtgtatg
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(2) INFORMATION FOR SEQ ID NO:2684:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2684

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361 cagacacggc ggcggcggcg ggagagggga ttccttgcgc ccccgacct caggcccgct
421 cagattcctg gagaggaagc caagtgtcct tctgccctcc cccggtatcc catccaaggc
481 gatcagttca gaactggctc tcggaagcgc tcgggcaaa actgcgaaga agaaaagaca
541 tctggcggaa acctgtgcgc ctggggcggt ggaactcggg gagagaggg agggatcaga
601 caggagagtg gggactaccc cctctgtccc caaattgggg cagcttctcg ggtttccgat
661 tttctcattt cctgtggtaa aaaaccctgc cccaccggg cttacgcaat tttttaagg
721 ggagaggagg gaaaaaattt gtgggggggt acgaaaaggc ggaaagaac agtcattcac
781 atgggcttgg ttttcagtct tataaaaagg aaggttctct cggtttagca ccaattgtca
841 tacgacttgc agtgagcgtc aggagcacgt ccaggaaact ctcagcagcg cctccttcag
901 ctccacagcc agacgcctc agacagcaaa gcctaccccc gcgcgcgcgc ctgcccgcgc
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1201 caagcactga tcattatgag ccagttaact aaccgatctg agacactctc acctcctaaa
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1501 ccattttaat ttggaaagt aagtgtact tatttgaact tcttaaaat gctaatttta
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1741 tcatagtcaa acaattaaat gtttaaatta agattaagac actagagaat gatttatttg
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1861 tatgagtgtg ggatttgacc agtataagt cgattgtacc cggacaggat tctatggaga
1921 aaactgtcga acacgtaagt ttgtcctttg gttgcctcat taggagtggt gctggataga
1981 gttatcattg tatagatttg tgtcttataa tgagteccat taatttctcc ctcccttct
2041 tctcttctt gcagcggaat ttttgacaag aataaaatta tttctgaaac ccactccaaa
2101 cacagtgcac tacatactta cccactcaa gggattttgg aacgttggtg ataacattcc
2161 cttccttcga aatgcaatta tgagttatgt cttgacatgt aagtacaagt gtctttctaa
2221 ggttttttagc cttctcaaag aaaaatatgc tttataatac tgtaagccta atctaaaaac
2281 atattttcaa gtttatcaa aagactttaa gatagctttt aagtttgct tccatcttaa
2341 tcgcaaaaaa tattgacatt tagtcccatc cagtttatac agtctgtcta caactctgta
2401 taccctcttct aacctttact gtttggtcag tttgtggagg tagcatggtc cagctgttta
2461 ttgaatgccc atgggccaca gaattgttct gaacatgtag caccatttaa aataaatttg
2521 gatttgatc agcaagaaaa taactttcca tgattctaaa gtgggtgcca tactcagcca
2581 ttcctttcat aggcctcttg gatagtgagc agatggctac ctgaaaaac aatattgcca

2641 gattataatg tgcagagtat atgtatttta ttaaagatgt atttcaagtg gccattagac
2701 tataaagtgt agttgtttta aatagatttt tttttatttt ggagttacat tcaacctcag
2761 gtgccacttt ccacatttta caataaaaat aatggttgat ttacttaaca aatgagaata
2821 aataaaaacat ttttttcttt gaaaatttca gccagatcac atttgattga cagtccacca
2881 acttacaatg ctgactatgg ctacaaaagc tgggaagcct tctctaacct ctccatttat
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3001 taagaagaat ccattagaga tgtattaact ataagacggg ctgcattgct gccaaaaaaa
3061 aaaattgacc ttagactacc atttatttat taacaaaagc agtttttact ttttagcatgg
3121 ttatctatgg gtatttttta aagtatgagt ctatataaac tattatgtaa aagcaaatga
3181 gcgtcttgggt ataattgtctt aatattttca aattatttct tttagaatga aataattcta
3241 attaaaaatag ataaaatcat tcagtaagaa gttgttccac catatcttag aactgttgtt
3301 tatattatga tctatttcac aattgtaatt ctcatataaa tgaagaattc ttggtagatt
3361 gacagtcacc atctccttcc ttgaatacat agatggattc ttaccttagc tttctcattt
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3661 agggctaaca ttaaaggaga tatacagata gatagatcca aataacttat ccactttttt
3721 taaaaagaag tcttatctat aaaaacctta aaggaatttt ccatttactt cactggtcta
3781 gtaaaattat acacacacac agacatgcac acacatatat aaacattcac acacatacat
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3901 ctgcaaaatg ttatgtcttc aaaaacacat tgtaccatga ttatgccgtt ttcaatattg
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4321 tttttctatc attttctagg tggacttaaa tcatatttac ggtgaaactc tggctagaca
4381 gcgtaaactg cgccttttca aggatggaaa aatgaaatat caggtagtct tcttttgact
4441 attaaagactt agttattacc gcttataccc atattttaaa atccctaaaa atgtgttctt
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4621 catctacggt ttgctgtggg gcaggaggtc tttggtcttg tgcttggtct gatgatgtat
4681 gccacaatct ggctgcggga acacaacaga gtatgcgatg tgcttaaaaca ggagcatcct
4741 gaatgggggtg atgagcagtt gttccagaca agcaggctaa tactgatagg taaacaagaa
4801 aatgattttat ataaaaccct cttccccagg gaaaattagt gtgctatctt tgttatgttt
4861 tgagtaaattg acaagatgtg gtaaatgaaa actcacacat tctatataca ttaaatatgt
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4981 gaatagcaaa ttttaaaaat tgcattccag ttgcttgaaa gcttgtgatc agatgcaata
5041 aatgtttttta ttattttatt tgtgcaataa ggagagacta ttaagattgt gattgaagat
5101 tatgtgcaac acttgagtgg ctatcacctc aaactgaaat ttgaccaga actacttttc
5161 aacaaacaat tccagtacca aaatcgtatt gctgctgaat ttaacacct ctatcactgg
5221 catccccctc tgcctgacac ctttcaaatt catgaccaga aatacaacta tcaacagttt
5281 atctacaaca actctatatt gctggaacat ggaattaccc agtttggtga atcattcacc
5341 aggcaaatgt ctggcagggg aagcattatt attgaaaacc aaaacaaaag actagtcagt
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5641 ttatttttga aatgtaaaaa ggcaaattag ttctaggctg gtgtccattt gaattttaag
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5881 ccaccgcag tacagaaagt atcacaggct tccattgacc agagcaggca gatgaaatac
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6481 atcgcttcca caggagaaaa ggaatgtct gcagagttgg aagcactcta tgggtacatc
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7441 taatttgaaa tttctaaatt catagggtag aatcacctgt aaaagcttgt ttgatttctt
7501 aaagttatta aacttgtaca tataccaaaa agaagctgtc ttggatttaa atctgtaaaa
7561 tcagatgaaa ttttactaca attgctgtgt aaaatatttt ataagtgtg ttcctttttc
7621 accaagagta taaacctttt tagtgtgact gttaaaaact ccttttaaat caaaatgcc
7681 aattttattaa ggtgtgtgag ccactgcagt gttatctcaa aataagaata tttgtgtgag
7741 atattccaga atttgtttat atggctggtg acatgtaaaa tctatatcag caaaagggtc
7801 taccctttaa ataagcaata acaaagaaag aaaccaaatt attgttcaaa tttaggttta
7861 aacttttgaa gcaaaacttt ttttctctt gtgcactgca ggcctgttac tcagattttg
7921 ctatgaggtt aatgaagtac caagctgtgc ttgaataacg atatgtttt tcagattttc
7981 tgtgttacag ttaattttag cagtccatcc cacattgcaa aagtagcaat gacctcataa
8041 aataacctct caaaatgctt aaattcattt cacacattaa ttttatctca gtcttgaagc
8101 caattcagta ggtgcattgg aatcaagcct ggctacctgc atgtgttcc ttttctttc
8161 tttttttagc cattttgcta agagacacag tctctcacc acttctgttc tcttattttg
8221 ttttactagt ttaagatca gaggctcatt tctttggact ctgcctatat tttcttacct
8281 gaacttttgc aagttttcag gtaaacctca gctcaggact gctattttag tctctttaag
8341 aagattaaaa gagaaaaaaa aaggcccttt taaaaatagt atacacttat ttaagttaa
8401 aagcagagaa ttttatttat agctaatttt agctatctgt aaccaagatg gatgcaagaa
8461 ggctagtgcc tcagagagaa ctgtacgggg tttgtgactg gaaaaagtta cgttccatt
8521 ctaattaatg ccttttctta tttaaaaaca aaaccaaag atattctaagt agttctcagc
8581 aataataata atgacgataa tacttctttt ccacatctca ttgtcactga catttaattg
8641 tactgtatat tacttaattt attgaagatt attattttat tcttattagg acactatggt
8701 tataaactgt gtttaagcct acaatcattg attttttttt gttatgtcac aatcagtata
8761 ttttctttg ggttacctct ctgaatatta tgaatacaat ccaaagaaat gattgtatta
8821 agatttgtga ataaattttt agaactctga ttggcatatt gagatattta aggttgaatg
8881 tttgtcctta ggataggcct atgtgctagc ccacaaagaa tattgtctca ttagcctgaa
8941 tgtgccataa gactgacctt ttaaaatggt ttgaggatc tgtggatgct tcttaatttt
9001 gttcagccac aattttattg gaaaatattc tgtgtcaagc actgtgggtt ttaattttt
9061 taaatcaaac gctgattaca gataatagta tttatataaa taattgaaaa aaattttctt
9121 ttgggaagag ggagaaaatg aaataaatat cattaaagat aactcaggag aatcttcttt
9181 acaattttac gtttagaatg ttaaggtta agaaagaaat agtcaatatg cttgtataaa
9241 acactgttca ctgtttttt taaaaaaa acttgatttg ttattaacat tgatctgctg
9301 acaaaacctg ggaatttggg ttgtgtatgc gaatgtttca gtgcctcaga caaatgtgta
9361 ttttaacttat gtaaaagata agtctggaaa taaatgtctg tttatttttg tactatttaa
9421 aaaaaaaa aaaaatcgat gtcgactcga gtc

(2) INFORMATION FOR SEQ ID NO:2685:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2685

1 gaattccgga gttccgggag cgcgagcgt cagtttgagt tctgtgttct ccccgccggt
61 gtcccgcccg acccgcgccc gcgatgctgg cgctgcgctg cggtcccgcc tggctcgcc
121 tgcctccggt ccccgctccc gtgcccgtgc gcctcccgcc ggcccgccgc tgcagcaagg
181 gctccggcga cccgtcctct tctcctctct cggggaaccc gctcgtgtac ctggacgtgg
241 acgccaacgg gaagcgcctc ggccgcgtgg tgcgtgagct gaaggcagat gtcgtcccaa
301 agacagctga gaacttcaga gccctgtgca ctgggtgagaa gggcttcgga tacaagggt
361 ccaccttcca cagggtgac ccttcttcca tgtgccaggc gggcgacttc accaaccaca
421 atggcacagg cgggaagtcc atctacggaa gccgctttcc tgacgagaa tttactga
481 agcacgtggg gccaggtgtc ctgtccatgg ctaatgtgtg tctaacacc aacggctccc
541 agttcttcat ctgcaccata aagacagact ggttgatgg caagcatgtt gtgttcggtc
601 acgtcaaaag gggcatggac gtcgtgaaga aaatagaatc ttcggctct aagagtggga
661 ggacatccaa gaagattgtc atcacagact gtggccagtt gagctaactc gtggccaggg
721 tgcgtggcatg gtggcagctg caaatgtcca tgcacccagg tggccgctt gggctgtcag
781 ccaagggtgcc tgaacgata cgtgtgccca ctccactgtc acagtgtgcc tgagggaaggc

841 tgctagggat gttagaccga attcc

(2) INFORMATION FOR SEQ ID NO:2686:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2686

1 ttttgcagac gccaccgccg agggaaaaccg tgtactatta gccatggtc

(2) INFORMATION FOR SEQ ID NO:2687:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2687

1 cgggaacgca acatgaagggt gctccttgcc gccgccctca tcgcggggtc cgtcttcttc
61 ctgctgctgc cgggaccttc tgcggccgat gagaagaaga aggggcccaa agtcaccgtc
121 aagggtgtatt ttgacctacg aattggagat gaagatgtag gccgggtgat ctttggcttc
181 ttcggaaaaga ctgttccaaa aacagtggat aattttgtgg ccttagctac aggagagaaa
241 ggatttggct acaaaaacag caaattccat cgtgtaatca aggacttcat gatccagggc
301 ggagacttca ccagggggaga tggcacagga ggaaagagca tctacgggtga gcgcttcccc
361 gatgagaact tcaaaactga gactacggg cctggctggg tcagcatggc caacgcagge
421 aaagacacca acggctccca gttcttcac acgacagtca agacagcctg gctagatggc
481 aagcatgtgg tgtttgcaa agttctagag ggcattggag tgggtcggaa ggtggagagc
541 accaagacag acagccggga taaaccctg aaggatgtga tcatcgaga ctgctggcaag
601 atcgaggtgg agaagccctt tgccatcgcc aaggagtagg gcacagggac atctttcttt
661 gactgaccgt ctgtgcagge cctgtagtcc gccacagggc tctgagctgc actggccccg
721 gtgctggcat ctggtggagc ggaccactc ccctcacatt ccacagggcc atggactcac
781 ttttctaaca aactcctacc aacttgacc aataaaaaaa aatgtgggtt tttttttttt
841 ttaataaaaa a

(2) INFORMATION FOR SEQ ID NO:2688:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2688

1 gaaggtgctc ctgcccgcg ccctcatcgc ggggtccgtc ttcttctcgc tgcgtccggg
61 accttctgcg gccgatgaga agaagaagg gcccagaagc accgtcaagg tgtattttga
121 cctacgaatt ggagatgaag atgtaggccg ggtgatcttt ggtctcttg gaaagactgt
181 tccaaaaaca gtggataatt ttgtggcctt agctacagga gagaaaggat ttggctacaa
241 aaacagcaaa ttccatcgtg taatcaagga cttcatgac cagggcggag acttcaccag
301 gggagatggc acaggaggaa agagcatcta cggtagcgc ttcccgatg agaacttcaa
361 actgaagcac tacgggcctg gctgggtgag catggccaac gcaggcaaaag acaccaacgg
421 ctcccagttc ttcattcacga cagtcaagac agcctggcta gatggcaagc atgtggtgtt
481 tggcaaagtt ctagagggca tggaggtggt gcggaagggt gagagcacca agacagacag
541 ccgggataaa cccctgaagg atgtgatcat cgagactgc ggcaagatcg aggtggagaa
601 gccctttgcc atcgccaagg agtagggcac agggacatct ttctttgagt gaccgtctgt
661 gcaggccctg tagtccgcca cagggtctct agctgcactg gcccgggtgc tggcatctgg
721 tggagcggac cactccctt cacattccac agggccatgg actcactttt gtaacaaact
781 cctaccaaca ctgaccaata aaaaaaatg tgggtttttt ttttaataa aag

(2) INFORMATION FOR SEQ ID NO:2689:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2689

1 gaattccctt gtaaggtttt cttaacaaaa caccagtcac ataagtgcatt tttattttat
61 atttttgttt atttatttga gacggagtct cttgtctctc aggtggagt gcagtggcgc
121 catctctgct cgtgcaacc tccacctcct gggttccagc gattctctct cctcagcctc
181 ccgagggggg agctgggact acaggtgcgc accaccatgc ccagctaatt ttgtattttt
241 cgtagagatg ggttttcacc atgttgtcca ggctggtctt gaactcctga cctcaggtga
301 tcttccgcc tcggcctccc aaagtgtctg aattacagge gtgatccacc gcaccgggcc
361 tattttttga gagagggtca cactctgtcg tcccggctgg aatgcagtga tgcgatcacc

421 gccactaca gcctcgacct ccggggtcaa gcaatcctcc ccgcccagcc tcttgagtag
481 cgagcgccctc gacgcccagc taatttttat ttttttttag agacggcgctc
541 tctctaagat gccaggctg gtggccgggtg tcgaactcct aagatgaagc gatcctccccc
601 ggccttgggcc tccgcgcctc ctaaagcgcc aggtatgagc caccgcgctt ggctacaag
661 tgcatttttaa ttaaagtatt attaatgtct ttgcctgaag aaattcgctt ttaattgtg
721 acttatcttt caccacaaaa tcaaagcaca attcagcccc gagggcgggg cggtaggagc
781 tggggcgggg gggggcaggg aaagaccagg agcagagatt caaaaagagt aagagggcaa
841 aatgtgcata atgcatcttc acaggtaaga gcctggccag gctcctgttt taatggcttc
901 ctctgaaga agattcaagc agagtgttag atattttcgg aaagtagagc attttgaaag
961 catttcataa tctctcaaaa ccggagactg ctctgtccc acctcgtag agaaaacagc
1021 gatgctcaaa ggcaacctcc ttcctgacct tgcctggtag gacgcagctt ggtgtttgac
1081 cgcgcggaat gcgagcgcaa ggctgctcct aggtctcggg gacgcgcat cccatttcc
1141 gctcgcggag gcgtagggtc cgggcgcggg acccagtcg acctgactg gcggcgagc
1201 cttgaggcct gcgttcgcct cagttgcccc ctctgtcaa tggggagagc gcctcatcg
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(2) INFORMATION FOR SEQ ID NO:2690:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2690

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(2) INFORMATION FOR SEQ ID NO:2691:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2691

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(2) INFORMATION FOR SEQ ID NO:2692:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2692

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 56581 ttc

(2) INFORMATION FOR SEQ ID NO:2693:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2693

1 ttcagttcta gcgtcaaccc ggtgctctac gtcttcaccg ctggagatct gctgccccgg
 61 gcaggtcccc gtttctctac gcggtctctc gaaggtcttg gggaggcccc agggggcgcc
 121 cgctctaggg aaggaccat ggagctccga actacccttc agctgaaagt ggtggggcag
 181 ggcgcggcca atggagaccc ggggggtggg atggagaagg acggtccgga atgggacctt
 241 tgacagcaga ccctacaacc tgtgcccctt cctgtccctt ttccaccccc caccacctt
 301 ccagaggtcc tcccgacggc catgaacact acatcttctg cagcaccccc ctcaactagt
 361 gttagattca tctctctgct ggctatcatc ctgctgtcag tggcgctggc tgtggggctt
 421 cccggcaaca gctttgtggt gtggagtatc ctgaaaagga tgcagaagcg ctctgtcact
 481 gccctgatgg tgctgaacct ggccctggcc gacctggccg tattgtctac tgctcccttt
 541 ttcccttact tcctggccca aggcacctgg agttttggac tggctggttg ccgcctgtgt
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 1561 gcctggctcc cacaggcagc ttttaaccatt aaaactgaag tctgaaattt ggtcaaaaaa
 1621 aataaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1681 a

(2) INFORMATION FOR SEQ ID NO:2694:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2694

1 gatcaaaatt tttacctatt atgcatttga tatataaata agtatataaa tgcacacaca
 61 gacacagcaa tgatggtgaa cagcttctat acaattatat ggatgaatct cataaaatgc
 121 tgagttaaag aaatcagacc aaagaacata tactgaaaga ttctcttat atacaaagtt
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 241 gggaggggac agtttaatgc ccagaagcgg taaataagga atcctctggg gagtggtaat
 301 gatctggatg ctggctacag gatgtgttgg ttgtaaaaat gcattttttt atatctagct
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 421 gagttagctca gtttagccca gcaagcctct ggcttaattct tgttttacct taagccatca
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 541 ttactgggta agagtctctc cattttccaa agcccgttta tttcttgatt ccagttctta
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(2) INFORMATION FOR SEQ ID NO:2695:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2695

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541 ctgaagtgc cagccctcga ataaaaagtg gcttcatggc cgggtgtgat ggctcagcc
601 tgtaatccca gcactttggg aggccgaggc aggtggaatc tttgaggtta ggagtcaag
661 accagcctgg ccaacatggt gaaacctcgt ctcttgaaaa aaaaaaaaaa aaagtggctc
721 cacccttttag aacctcttag aagatggcac atttaagccc tgcttttttt tttttttaa
781 tccaatatg gctctacttt ggaggacata ccagagagtc actagccttt tatttcata
841 gagaaaatga aactatttct cttattctca cacatttgag gtcccttttt gagtaagata
901 gatggttcta gaaaagaaag aaagatatcc tacctgaatt tccatttgtg tgcagaagtc
961 taaaacacta cctttacgat ttgtccttga agaaccacac tatctacaac atatctaaag
1021 aaaaaaaaaa acagcgaagc tgtgcatagc ag

```

(2) INFORMATION FOR SEQ ID NO:2696:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2696

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1 atcaaacaga aatgactatt gaaggcttgc agccacagt ggagtatgtg gttagtgtct
61 atgctcagaa tccaagcggg gagagtcagc ctctggttca gactgcagta accagtacgt
121 aaccactgct tggtttccat tttcaaagtc aaattttgtt cttgggtgtc tgaatgcccc
181 cgacatgtct tttgcaatta cacataggga aagtgaactt gttggttagt ttatgtcttg
241 agctgagccc tttacgaaca tcttttttcc ttctcagtgc caagcgagga atttacagag
301 aaagaagttg tgaaaccacc atagttagtt gctgtgcttt gaatttcttt ttgctcaaat
361 ggcctcagcg aaatcttatt tgcctatagc aaatctacaa aaaattttcc tagaccgtct
421 tttctacaac tggatggtaa agttgattga agtgtgcctc atgtagcttt atgtttgggg
481 catttgaaag gctatggctg gaccagagtg taatataaat gcttaataga gaggggaaaa
541 gaagagtgtg agaaccatta tagggctggg ctacgcctg taatcccagc attttgggag
601 gctgaggcgg atcacgaggt caggagttcg agaccagcct gaccaacatg gtgaaacccc
661 atctctacta aaaatacaaa aattagccag tcgcggtggc acgtgcctgt aatcccagct
721 actcacggag gctgaggcag aagaatcact tggacccagg aggcagaagt tgcagtgagc
781 caagatcatg cctctgcacc ccagcctagg tgatagagtg agactccatc tcaaaaaaaa
841 acaaaaacaaa acaattataa caatttgaat ctgaaccata tgcaaatcag ctttaccact
901 tccaaggtat aagaaaatcc aggtctatga gactaacatc acattgtaaa aatcaaatcg
961 tggtagaata cctttaaatt aatataata catccccatt gtggggacat tttgcagggt

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1021 atctgcttat ctcacataca ccatgtttta ataagtgatg caacattgca tattttctaa
1081 accaagaaaa attaagcaag tgtttaagtg atttttcctt tgatagtggg ttaattggac
1141 ttcatacaag aaaatggtat ctgcaaaaact gctttgcatg ttataaaaaat gcttatttca
1201 caacttgctt tcacataacc tcttaccatt aatttgccca acagacattg atcgccctaa
1261 aggactggca ttcactgatg tggatgtcga ttccatcaaa attgcttggg aaagccca
1321 ggggcaagtt tccaggtaca ggggtgacct ctcgagccct gaggatggaa tccatgact
1381 attccctgca cctgatgtg aagaagacac tgcagagctg caaggcctca gaccgggttc
1441 tgagtacaca gtcagtgtgg ttgccttgca cgatgatatg gagagccagc ccctgattgg
1501 aaccagctcc acaggtatat ggttaattgc acacaggtgc catgggagca gcggtttat
1561 gcctactgaa tgaattatgc ttcactgggc tattgattcc cgtgtaaggg tgaaaaagaa
1621 ttattaggaa agatcctctt taaagaggaa tggtaagaaa caataaaact taggtgatat
1681 ttaaggaaac agtctgtatt aaaagaaatt ttggagtatc ctggcttata cacaagacca
1741 taaagcaaga catttgaaga ggatactaaa gttgtggatt atttcctaag ctctgactcc
1801 ctgtgattac cctcactatg tataaagaaa agaagtttgg cattacagag cttacttata
1861 aaaaggaacc caaactcggg catttcatag cagcatgatt ctgagcacac gtgggtaaga
1921 cctttcttct ctggttagat atcatatgct ggtgtataat tagcttaaat gattgtgatt
1981 tagacacctt ggaaataatc aatagggcaa ttgctttcca taatacttta tcttcttggtg
2041 ctttatttct gaagcagagt agaagtctaa agatgtatcc tagtgacagc ataaacccta
2101 gaggtgacag tctgtattat tgcttttcgc ttctcttttc tgcttctggt gggagccagt
2161 tttcttctta cgccgcatta cagagagaac gtcaaattta gcaagccata ctgcccagatg
2221 gtccaaataa agagacaata aaaattattc tctctttttt ggatggaata ctgctgtaa
2281 tggttatcca tacaagata ctttatgtag aatagaaaaa ggaggccggg tgcagtggct
2341 cacacatgta atcctagtgc tttgggaggc taagccggga gcaactgattg aggccaggag
2401 ttcatgatca gcctgggcaa tgaagtga ccccgctctc acaaaaaaat atgaaaaaat
2461 tagcgaggtg tgggtgacaca tgcctgtagt cccagctact caagaggctg aggtagagga
2521 tcacttgagc ctacgagttc aaggctgcag tgagctatga taactccact gcaactgctgc
2581 ctggtgaca cagagagacc gtttctaata taattaatta acaattttta gaaagaaaaa
2641 gggccattgc ttatttttcc atacaaaagt aaaataaatc ataattggca ataagccaat
2701 gtaacttttt tttttaaggg aaagcaaaac ttgtaaaacc taaaatctct tagagttttg
2761 gcattttacc aaatgttttc agtgattctg agaattgggt gatataaaac acatttctca
2821 gcaaacactt tcttcatttt gcatccctta ctgtactttc ttgtactgaa tctttgcttg
2881 accagggaac ccacctagcc caacaagaac aatccattct acttcttgga actacgttta
2941 ttttcttttt cccctatttc ctataagata acctctaacc aatgacaatc tgcagagcta
3001 ttcctgcacc aactgacctg aagttcactc aggtcacacc cacaagcctg agcgcccagt
3061 ggacaccacc caatgttcag ctactggat atcgagtgcg ggtgaccccc aaggagaaga
3121 cggaccaat gaaagaagtc aacctgtctc ctgacagctc atccgtggtt gtatcaggac
3181 ttatc

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(2) INFORMATION FOR SEQ ID NO:2697:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2697

```

1 ctgcactttt gataacctga gtccggcct ggagtacaat gtcagtgttt acactgtcaa
61 ggatgacaag gaaagtgtcc ctatctctga taccatcatc ccaggtaata gaaaataagc
121 tgctatcctg agagtgcatt tccaataaga gtggggatta gcactttaat ccccgatgc
181 ttaagggtgt caactatatt tgggatttaa ttccgatctc ccagctgcac ttcccaaac
241 caagaagtca aagcagcat ttggacaaaa tgcttctgtg taactactgt ttactgtctg
301 tgcttctact ggatgctgtg tgttgacgag agtatgtaat ggagtggcag ccattggctt
361 aactctgtat tgtctgtctc catggaagta tgactaaaac actgtcacgt gtctgtactc
421 agtactgata ggctcaaaat aatatggtaa atgcatccca tcagtacatt tctgcccgat
481 tttacaatcc atatcaattt ccaacagctg cctatttcat cttgcagttt caaatccttc
541 tttttgaaaa ttggatttta aaaaaaagt aagtaaaagt cacaccttca gggttgttct
601 ttcttggggc ctgaaaagac aacattgcaa aggcctgtcc taaggatagg cttgtttgtc
661 cattgggtta taacataatg aaagcattgg acagatcgtg tcccccttg gactcttcag
721 tagaatgctt ttactaacgc taattacatg ttttgattat gaatgaacct aaaatagtgg
781 caatggcctt aacctaggcc tgtcttctc cagcctgaat gtgcttttga atggcacatt
841 tcacaccata cattcataat gcattagcgt tatggccatg atgttgtcat gaggtttcta
901 tgggagaaaa aaaatcaatt tatcaccat ttattatttt ttccggttgt tcatgcaagc
961 ttatttttcta ctaaaacagt tttggaatta ttaaaagcat tgctgatact tacttcagat
1021 attatgtcta ggctctaaga atggtttcga catcctaacc agccatata tttttagaa
1081 tctgaacagt tcaaatgtga ccttttaagg atgttttcaa aatgtaaaaa atatatatat
1141 atatatatat tccctaaaag aatattcctg tttattcttc tagggaagca aactgttcat
1201 gatgcttagg aagtcttttc agagaattta aaacagattg catattacca tcattgcttt
1261 aacattccac caattttact actagtaacc tgatatacac tgctttattt ttctctcttt
1321 ttttccctct attttcttt tgctctcccc tccctttgct ttgtaactca atagaggtgc
1381 cccaactcac tgacctaaagc tttgttgata taaccgattc aagcatcggc ctgaggtgga

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1441 ccccgctaaa ctcttcacc attattgggt accgcatcac agtagttgcg gcaggagaag
1501 gtatccctat ttttgaagat tttgtggact cctcagtagg atactacaca gtcacagggc
1561 tggagccggg cattgactat gatatcagcg ttatcactct cattaatggc ggcgagagtg
1621 cccctactac actgacacaa caaacgggtg aattttgaaa actcttgcgt ttgagacata
1681 gatgtgtgtg catgctgcca ccagttactc cggttaaata tggatgtttc atgggggaag
1741 tcagcaattg gccaaagatt cagataggtg gaattggggg gataaggaaat caaatgcac
1801 tgctaaactg attggagaaa aacacatgca atatcttcag tacactctca tttaaaccac
1861 aagtagatat aaagcctaga gaaatacaga tgtctgctct gttaaataata aaatagcaaa
1921 tgttcattca atttgaagac ctagaatttt tcttcttaaa taccaaacac gaataccaaa
1981 ttgcgtaagt accaattgat aagaatata caccaaaatg taccatcatg ctcttctctc
2041 taccctttga taaactctac catgctcctt cttttagact aaaaacccat caaaatttag
2101 ggtagagtg atgggcattg ttttgaggta ggagaaaagt aaacttggga ccattctagg
2161 ttttgttgct gtcactaggt aaagaaacac ctctttaacc acagtctggg gacaagcatg
2221 caacatttta aaggttctct gctgtgcatg ggaaaagaaa catgctgaga accaatttgc
2281 atgaacatgt tcacttgtaa gtagaattca ctgaatggaa ctgtagctct agatatctca
2341 catgggggga agtttaggac cctctgtctt ttttgtctgt gtgcatgtat tctttgttaa
2401 agtactgcta tgtttctctt tgctgtgtgg caacttaagc ctcttcggcc tgggataaaa
2461 taactctgcag tggatttaac aatgtacata aagtcaacat atttgaaagt agattaaaaat
2521 cttttttaaa tatatcaatg atggcaaaaa ggttaaaggg ggcctaacag tactgtgtgt
2581 agtgttttat ttttaacagt agtacactat aacttaaaat agacttagat tagactgttt
2641 gcatgattat gattctgttt cctttatgca tgaaatattg attttacctt tccagctact
2701 tcgttagctt taattttaaa atacattaac tgagtcttcc ttctgttctg aaaccagctg
2761 ttctctctcc cactgacctg cgattcacca acattggtcc agacaccatg cgtgtcacct
2821 ggg

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(2) INFORMATION FOR SEQ ID NO:2698:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2698

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1 gaagagcaag aggcaggctc agcaaatggt tcagccccag tccccggtgg ctgtcagtc
61 aagcaagccc ggttgttatg acaatggaaa acactatcag ataaatcaac agtgggagcg
121 gacctaccta ggtaatgtgt tggttgttac ttgttatgga ggaagccgag gttttaactg
181 cgaaagtaaa cctgaagctg aagagacttg ctttgacaag tacactggga acacttaccg
241 agtgggtgac acttatgagc gtcctaaaga ctccatgac tgggactgta cctgcacagg
301 ggctgggcca gggagaataa gctgtaccat cgcaaacccg tgccatgaag ggggtcagtc
361 ctacaagatt ggtgacacct ggaggagacc acatgagact ggtggttaca tgttagagtg
421 tgtgtgtctt ggtaatggaa aaggagaatg gacctgcaag cccatagctg agaagtgttt
481 tgatcatgct gctgggactt cctatgtggg cggagaaaacg tgggagaagc cctaccaagg
541 ctggatgatg gtagattgta cttgcctggg agaaggcagc ggacgcatca cttgcacttc
601 tagaaataga tgcaacgac aggacacaag gacatcctat agaattggag acacctggag
661 caagaaggat aatcgaggaa acctgctcca gtgcatctgc acaggcaacg gccgaggaga
721 gtggaagtgt gagaggcaca cctctgtgca gaccacatcg agcggatctg gcccttcac
781 cgatgttcgt gcagctgttt accaaccgca gcctcaccac cagcctcttc cctatggcca
841 ctgtgtcaca gacagtgggt tggctactc tgtggggatg cagtgggtga agacacaagg
901 aaataagcaa atgctttgca cgtgcctggg caacggagtc agctgccaag agacagctgt
961 aaccagact tacggtggca acttaaatgg agagccatgt gtcttaccat tcacctacaa
1021 tggcaggacg ttctactcct gcaccacgga agggcgacag gacggacatc tttggtgcag
1081 cacaacttcg aattatgagc aggaccagaa atactcttcc tgcacagacc acactgtttt
1141 ggttcagact caaggaggaa attccaatgg tgccttgtgc cacttccccct tcctatacaa
1201 caaccacaat tacactgatt gcacttctga gggcagaaga gacaacatga agtgggtgtg
1261 gaccacacag aactatgatg ccgaccagaa gtttgggttc tgccccatgg ctgccacga
1321 ggaaatctgc acaaccaatg aaggggtcat gtaccgcatt ggagatcagt gggataagca
1381 gcatgacatg ggtcacatga tgaggtgcac gtgtgttggg aatggctcgt gggaaatggac
1441 atgcattgcc tactcgcaac ttcgagatca gtgcattgtt gatgacatca cttacaatgt
1501 gaacgacaca ttccacaagc gtcatgaaga ggggcacatg ctgaactgta catgcttcgg
1561 tcagggtcgg ggcagggtga agtgtgatcc cgctgaccaa tgccaggatt cagagactgg
1621 gacgttttat caaattggag attcatggga gaagtatgtg catggtgtca gataccagtg
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1801 catccagtgg aatgcaccac agccatctca catttccaag tacattctca ggtggagacc
1861 taaaaattct gtaggcggtt ggaaggagc taccatacca ggccacttaa actcctacac
1921 catcaaaggg ctgaagcctg gtgtgtgata cgagggccag ctcatcagca tcagcagta
1981 cggccaccaa gaagtgactc gctttgactt caccaccacc agcaccagca cacctgtgac
2041 cagcaaccaa gtgacaggag agacgactcc cttttctcct cttgtggcca cttctgaatc
2101 tgtgaccgaa atcacagcca gtactttgtt ggtctcctg gtctcagctt ccgacaccgt
2161 gtcgggattc cgggtggaat atgagctgag tgaggaggga gatgagccac agtacctgga

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2221 tcttccaagc acagccactt ctgtgaacat ccctgacctg cttcctggcc gaaaatacat
2281 tgtaaatgtc tatcagatat ctgaggatgg ggagcagagt ttgatcctgt ctacttcaca
2341 aacaacagcg cctgatgccc ctccctgaccc gactgtggac caagttgatg acacctcaat
2401 tgttgttcgc tggagcagac ccagggctcc catcacaggg tacagaatag tctattcgcc
2461 atcagtagaa ggtagcagca cagaactcaa ccttccctgaa actgcaaat ccgtaaccct
2521 cagtgaactg caacctgggtg ttcagtataa catcactatc tatgctgtgg aagaaaatca
2581 agaaagtaca cctgttgtca ttcaacaaga aacctactggc accccacgct cagatacagt
2641 gccctctccc agggacctgc agtttgtgga agtgacagac gtgaaggta ccatcatgtg
2701 gacaccgctc gagagtgcag tgaccggcta cctgtgtgat gtgatcccg tcaacctgcc
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3361 agaatacgtc tacaccatcc aagtccctgag agatggacag gaaagagatg cgccaattgt
3421 aaacaaagtg gtgacacatc tgtctccacc aacaaacttg catctggagg caaacctga
3481 cactggagtg ctacagctc cctgggagag gagcaccacc ccagacatta ctggttatag
3541 aattaccaca accctacaa acggccagca gggaaattct ttggaagag tggtccatgc
3601 tgatcagagc tcctgcactt ttgataacct gagtcccgcc ctggagtaca atgtcagtgt
3661 ttacactgtc aaggatgaca aggaaagtgt ccttatctct gataccatca tcccagctgt
3721 tcctcctccc actgacctgc gattcaccaa cattggtcca gacaccatgc gtgtcactg
3781 ggctccaccc ccattccattg atttaaccaa cttcctggtg cgttactcac ctgtgaaaaa
3841 tgaggaagat gttgcagagt tgtcaatttc tccttcagac aatgcagtgg tcttaacaaa
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3961 cacacctctt agaggaagac agaaaacagg tcttgattcc ccaactggca ttgacttttc
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4201 catcgttgtc cttaattggca gagaggaaag tcccttattg attggccaac aatcaacagt
4261 ttctgatgtt ccgagggacc tggaaagtgt tgcgtcgacc cccaccagcc tactgatcag
4321 ctgggatgct cctgctgtca cagttagata ttacaggatc acttacggag aaacaggagg
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4561 gatgcaagtg accgatgttc aggacaacag cattagtgtc aagtggctgc cttcaagttc
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4681 taaaactgca ggtccagatc aaacagaaat gactattgaa ggcttgacgc ccacagtggg
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4981 agagctgcaa ggctcagac cgggttctga gtacacagtc agtgtgttg ccttgacga
5041 tgatatggag agccagcccc tgattggaac ccagtccaca gctattcctg caccaactga
5101 cctgaagttc actcaggtca caccacaag cctgagcgcc cagtggacac caccatgt
5161 tcagctcact ggatatcgag tgcgggtgac ccccaaggag aagaccggac caatgaaaga
5221 aatcaacctt gtccttgaca gtcctccgt ggttgtatca ggacttatgg tggccaccaa
5281 atatgaagtg agtgtctatg ctcttaagga cactttgaca agcagaccag ctcaggtgtg
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5401 gaccaccatc accattagct ggagaaccaa gactgagacg atcactggct tccaagtga
5461 tgccgttcca gccaatggcc agactccaat ccagagaacc atcaagccag atgtcagaag
5521 ctacaccatc acagggtttac aaccaggcac tgactacaag atctacctgt acacctgaa
5581 tgacaatgct cggagctccc ctgtgggtcat cgacgcctcc actgccattg atgcaccatc
5641 caacctgcgt ttcttgcca ccacaccaa ttccttgctg gtatcatgtc agccgccacg
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5761 ggtccctcgg ccccgccctg gtgtcacaga ggctactatt actggcctgg aaccgggaac
5821 cgaatataca atttatgtca ttgccctgaa gaataatcag aagagcgagc ccctgattgg
5881 aaggaaaaag acagacgagc ttcccaact ggtaaccctt ccacaccca atcttcatgg
5941 accagagatc ttggatgttc cttccacagt tcaaaagacc ctttctgca cccacctgg
6001 gtatgacact ggaaatggta ttcagcttcc tggcacttct ggctagcaac ccagtgttgg
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6121 gccataaag catagggcaa gaccataccc gccgaatgta ggacaagaag ctctcttca
6181 gacaaccatc tcatgggccc cattccagga cacttctgag tacatcattt catgtcatcc
6241 tgttggcact gatgaagaac ccttacagtt cagggttctt ggaacttcta ccagtgccac

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6301 tctgacaggc ctcaccagag gtgccacctt caacatcata gtggaggcac tgaagacca
6361 gcagagggcat aaggttcggg aagaggttgt taccgtgggc aactctgtca acgaaggctt
6421 gaaccaacct acggatgact cgtgctttga cccctacaca gtttccatt atgccgttgg
6481 agatgagtgg gaacgaatgt ctgaatcagg ctttaaaactg ttgtgccagt gcttaggctt
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6601 caagattgga gagaagtggg accgtcaggg agaaaatggc cagatgatga gctgcacatg
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(2) INFORMATION FOR SEQ ID NO:2699:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2699

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5101 cctgaagttc actcaggtca caccacaag cctgagcgcc cagtggacac caccatgt
5161 tcagctcact ggatatcgag tgcgggtgac ccccaaggag aagaccggag caatgaaga
5221 aatcaacctt gtcctgaca gtcctccctt ggttgtatca ggacttatgg tggccacca
5281 atatgaagtg agtgtctatg ctcttaagga cactttgaca agcagaccag ctgaggtgt
5341 tgtcaccact ctggagaatg tcagccacc aagaagggtc cgtgtgacag atgtactga
5401 gaccaccatc accattagct ggagaaccaa gactgagacg atcactggct tccaagttga
5461 tgccgttcca gccaatggcc agactccaat ccagagaacc atcaagccag atgtcagaag
5521 ctacaccatc acagggtttac aaccaggcac tgactacaag atctactgt acacctgaa
5581 tgacaatgct cggagctccc ctgtggtcat cgacgcctcc actgccattg atgcaccatc
5641 caacctgctt ttcctggcca ccacacccaa ttccttgctg gtatcatggc agccgccacg
5701 tgccaggatt accggctaca tcatcaagta tgagaagcct ggttctcctc ccagagaagt
5761 ggtccctcgg ccccgccctg gtgtcacaga ggctactatt actggcctgg aaccgggaac
5821 cgaatataca atttatgtca ttgccctgaa gaataatcag aagagcgagc ccctgattgg
5881 aaggaaaaag acagacgagc ttccccactt ggtaaccctt ccacacccca atcttcattg
5941 aacagagatc ttggatgttc cttccacagt tcaaaaagacc cctttcgtca cccacctgg
6001 gtatgacact ggaaatggta ttcagcttcc tggcacttct ggtcagcaac ccagtgttg
6061 gcaacaaatg atctttgagg aacatggttt taggcggacc acaccgcca caacggccac
6121 ccccataagg cataggccaa gaccataccc gccgaatgta ggacaagaag ctctctctca
6181 gacaaccatc tcatgggccc cattccagga cacttctgag tacatcattt catgtcatcc
6241 tgttggcact gatgaagaac ccttacagtt cagggttcct ggaacttcta ccagtgccac
6301 tctgacaggc ctcaccagag gtgcccacta caacatcata gtggaggcac tgaagacca
6361 gcagaggcat aaggttcggg aagaggttgt taccgtgggc aactctgtca acgaaggctt
6421 gaaccaacct acggatgact cgtgctttga cccctacaca gtttccatt atgccgttg
6481 agatgagtgg gaacgaatgt ctgaatcagg ctttaaaactg ttgtgccagt gcttaggctt
6541 tggaagtggc catttcagat gtgattcatc tagatggtgc catgacaatg gtgtgaacta
6601 caagattgga gagaagtggg accgtcaggg agaaaatggc cagatgatga gctgcacatg
6661 tcttgggaac ggaaggag aattcaagt tgacctcat gaggcaagct gttacgatga
6721 ttgggaagaca taccagtag gagaacagt gcagaaggaa tatctcgggt ccatttgctc
6781 ctgcacatgc tttggaggcc agcggggctg gcgctgtgac aactgccgca gacctggggg
6841 tgaacccagt cccgaaggca ctactggcca gtcctacaac cagtattctc agagatacca
6901 tcagagaaca aacactaatg ttaattgccc aattgagtgc ttcatgcctt tagatgtaca
6961 ggctgacaga gaagattccc gagagtaa at catcttcca atccagagga acaagcatgt
7021 ctctctgcca agatccatct aaactggagt gatgttagca gacctagctt agagttcttc
7081 tttctttctt aagccctttg ctctggagga agttctccag cttcagctca actcacagct
7141 tctccaaagca tcacctggg agtttctgta gggtttctc ataaatgagg gctgcacatt
7201 gcctgttctg cttcgaagta ttcaataccg ctcagtattt taaatgaagt gattctaaga
7261 tttggtttgg gatcaatagg aaagcatatg cagccaacca agatgcaaat gttttgaaat

7321 gatatgacca aaattttaag taggaaagtc acccaaacac ttctgctttc acttaagtgt
 7381 ctggcccgca atactgtagg aacaagcatg atcttggtac tgtgatattt taaatatcca
 7441 cagtactcac tttttccaaa tgatcctagt aattgcctag aaatatcttt ctcttacctg
 7501 ttatttatca atttttccca gtatttttat acggaaaaaa ttgtattgaa aacacttagt
 7561 atgcagttga taagaggaat ttggtataat tatggtgggt gattattttt tatactgtat
 7621 gtgccaaagc tttactactg tggaaagaca actgttttaa taaagattt acattccaca

(2) INFORMATION FOR SEQ ID NO:2700:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2700

1 ctgctcctgc gcggcagctg ctttagaagg tctcgagcct cctgtacctt cccaggggatg
 61 aaccgggcct tccctctgga aggcgagggt tcgggccaca gtgagcgagg gccagggcgg
 121 tgggcgcgcg cagagggaaa ccgcatcagt tgagagagaa tcaagagtag cggatgaggc
 181 gcttgtgggg cgcgcccgag aagccctcgg gcgcgggctg ggagaaggag tgggcgagg
 241 cgccgcagga ggctcccggg gcctggtcgg gccggtggg ccccgggcgc agtggaagaa
 301 agggacgggc ggtgcccggt tgggcgtcct gccagctca ccttgccctg gcggtcggc
 361 ccgcccggca cttgggagga gcagggcagg gcccgcgcc tttgcattct gggaccggc
 421 ccttccattc ccggccagc ggcgagcgg agcgacgggt ggagccgag ctacagcatg
 481 agagccgggt ccgctcctcc acgcctcgg acgctggcg agcgaggca gcgctgcctg
 541 ttcgcgccat gggggcaccg tggggctcgc cgacggcggc ggcggcggg cggcgcggt
 601 ggcgcgagg ccgggggctg ccatggaccg tctgtgtgct ggcggccgccc ggcttgacgt
 661 gtacggcgct gatcacctac gcttgcctgg gccagctgcc gccgctgccc tgggctcgc
 721 caaccccgtc gcgaccgggt ggcgtgtcgc tgtgtggga gcccttcggg gggcgcgata
 781 ggcggcgag gccggccct gactgcggc tgcgttcaa catcagcggc tgcgcctgc
 841 tcaccgaccg cgctcctac ggagagctc aggcgctgct tttccaccac cgcgactcg
 901 tgaaggggccc ccccgactgg ccccgctct ggggcatcca ggcgcacact gccagggagg
 961 tggatctgcg cgtgttgac tacgaggagg cagcgcggc ggcagaagcc ctggcgacct
 1021 ccagccccag gcccccgggc cagcgctggg tttgatgaa cttcgagtcg ccctcgact
 1081 ccccggggct gcgaagcctg gcaagtaacc tctcaactg gacgctctcc taccggcgg
 1141 actcgagcgt ctttgtgct tatggctacc tctacccag aagccacccc ggcgaccgc
 1201 cctcaggcct ggcccggcca ctgtccagga aacagggggt ggtggcatgg gtggtgagcc
 1261 actggggcga cgccagggc cgggtccgct actaccacca actgagccaa catgtgaccg
 1321 tggacgtgtt cgccgggggc gggccggggc agccggtgcc cgaaattggg ctctgcaca
 1381 cagtggcccg ctacaagttc tacctggctt tcgagaactc gcagcacctg gattatatca
 1441 ccgagaagct ctggcgcaac gcgttgctcg ctggggcggt gccggtggtg ctgggcccag
 1501 accgtgccaa ctacgagcgc tttgtgcccc gcggcgccct catccacgtg gacgacttcc
 1561 caagtgcctc ctccctggcc tegtacctgc ttttccctga ccgcaacccc gcggtctatc
 1621 gccgctactt ccactggcgc cggagctacg ctgtccacat cactccttc tgggacgagc
 1681 cttggtgccc ggtgtgccag gctgtacaga gggctgggga ccggcccaag agcatagga
 1741 acttgccag ctggttcgag cgggtgaagc gcgctccctt ggaagcgacc caggggaggc
 1801 caagtgtgca gctttttgat cctctactgt gcatctcctt gactgccgca tcatgggagt
 1861 aagtcttcca aacacccatt tttgctctat gggaaaaaaa cgatttaccata attaatatta
 1921 ctcagcacag agatgggggc ccggtttcca tattttttgc acagctagca attgggctcc
 1981 ctttctgct gatgggcatc attgtttagg ggtgaaggag ggggttcttc ctaccttgt
 2041 aaccagtgc gaaatgaaat agcttagcgg caagaagccg ttgagcggtt ttcctgaatt
 2101 tccccatctg ccacaggcca tatttgtggc ccgtgcagct tccaaatctc atacacaact
 2161 gttcccgaat cacgtttttc tggaccaagg tgaagcaaat ttgtggttgt agaaggagcc
 2221 ttgttggttg agagtggaa gactgtggct gcaggtggga cttgtgtgtt tggattcctc
 2281 acagccttgg ctctgagaa aggtgaggag ggcagtcaca gaggggccgc tgacttcttt
 2341 cacaagtact atctgttccc ctgtcctgtg aatggaagca aagtgtgga ttgtccttgg
 2401 aggaaactta agatgaatac atgcgtgtac ctactttac ataagaaatg tattcctgaa
 2461 aagctgcatt taaatcaagt cccaaattca ttgacttagg ggagttcagt atttaagtga
 2521 accctatgga gaatttatcc ctttacaatg tgaatagtca tctcctaatt tgtttcttct
 2581 gtctttatgt ttttctataa cctggatttt ttaaatcata ttaaaattac agatgtgaaa
 2641 ataaagcaga agcaaccttt tccctcttcc ccagaaaacc agtctgtgtt tacagacaga
 2701 agagaaggaa gccatagtgt cacttcacaa caattattta tttcatgtct ttactggacc
 2761 tgaaatttaa actgcaatgc cagtcctgca ggagtgtgg cattaccctc tgcagaacag
 2821 tgaaagggtat tgcactacat tatggaatca tgcaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2701:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2701

```

1 acgcgtggcg agcggaggca gcgtgcctg ttcgcgccat gggggcaccg tggggctcgc
61 cgacggcggc ggcggggcgg cggcgcggtt ggcgcgagg ccgggggctg ccatggaccg
121 tctgtgtget ggcggccgcc ggcttgacgt gtacggcgct gatcacctac gcttgctggg
181 ggagctgcc gccgctgcc tgggcgtgc caaccccgtc gcgaccggtg ggctgtctgc
241 tgtggtggga gcccttcggg gggcgcgata gcgccccgag gccgccccct gactgccccg
301 tgcgcttcaa catcagcggc tgccgctgc tcaccgaccg cgcgtcctac ggagaggctc
361 aggcctgtct tttccaccac cgcgacctcg tgaaggggccc ccccgactgg ccccgccct
421 ggggcatcca ggcgcacact gccgaggagg tggatctgcg cgtgttgagc tacgaggagg
481 cagcggcggc ggcagaagcc ctggcgacct ccagccccag gccccgggc cagcgtggg
541 tttggatgaa cttcgagtcg ccctcgact ccccggggct gcgaagcctg gcaagtaacc
601 tcttcaactg gacgtctccc taccggcggt actcgacgt ctttgtcct tatggctacc
661 tctaccccag aagccacccc ggcgaccgc ctcaggcct gggcccgcca ctgtccagga
721 aacaggggct ggtggcatgg gtggtgagcc actgggacga gcgccaggcc cgggtccgct
781 actaccacca actgagccaa catgtgaccg tggacgtgt cggccggggc gggccggggc
841 agccgtgccc cgaaattggg ctccctgcaca cagtggcccg ctacaaattc tacttggtt
901 tcgagaactc gcagcacctg gattatatca ccgagaagct ctggcgcaac gcgttgctcg
961 ctggggcggt gccggtggtg ctggggccag accgtgccaa ctacgagcgc tttgtgcccc
1021 gcggcgccct catccacgtg gacgacttcc caagtgcctc ctccctggcc tcgtacctgc
1081 ttttctcga ccgcaacccc gcggtctatc gccgctactt ccactggcg cggagctacg
1141 ctgtccacat cacctccttc tgggacgagc cttggtgccg ggtgtgccag gctgtacaga
1201 gggctgggga ccggcccaag agcatacgga acttgccag ctggttcgag cggtag

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(2) INFORMATION FOR SEQ ID NO:2702:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2702

```

1 cagatactct gacccatgga tcccctgggc ccggccaagc cacagtggtc gtggcgctgc
61 tgtctgacca cgctgctgtt tcagctgctg atggctgtgt gtttcttctc ctatctgct
121 gtgtctcaag acgatccac tgtgtacct aatgggtccc gcttcccaga cagcacagg
181 acccccgccc actccatccc cctgatcctg ctgtggacgt ggcttttaa caaacccata
241 gctctgcccc gctgtcaga gatgtgcct ggcacggctg actgcaacat cactgccag
301 cgcaagggtg atccacaggc agacgcggtc atcgtgcacc accgagaggt catgtacaac
361 cccagtgccc agctcccacg ctcccggagg cggcaggggc agcgatggat ctggttcagc
421 atggagtccc caagccactg ctggcagctg aaagccatgg acggatactt caatctcacc
481 atgtcttacc gcagcgactc cgacatcttc acgcccacg gctggctgga gccgtggctc
541 ggccagcctg cccacccacc gctcaacctc tcggccaaga ccgagctggt ggctgggca
601 gtgtccaact gggggccaaa ctccgccagg gtgcgctact accagagcct gcaggccccat
661 ctcaagggtg acgtgtacgg acgtctccac aagcccctgc cccagggaac catgatggag
721 acgtgttccc ggtacaagtt ctatctggcc ttcgagaact ccttgacccc cgactacatc
781 accgagaagc tgtggaggaa cgccctggag gccctgggccc tgcccgtggt gctgggcccc
841 agcagaagca actacgagag gttcttgccg cccgacgcct tcattcacgt ggacgacttc
901 cagagcccca aggacctggc ccggtacctg caggagctgg acaaggacca cgcccgtac
961 ctgagctact ttgctggcg ggagacgctg cggcctcgct cttcagctg ggcactcgct
1021 ttctgcaagg cctgctggaa actgcaggag gaatccaggt accagacag cggcatagcg
1081 gcttggttca cctgagaggc ccggcatggg gcctgggctg ccaggg

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(2) INFORMATION FOR SEQ ID NO:2703:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2703

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1 aaggagcaca gttccaggcg gggctgagct agggcgtagc tgtgatttca ggggcacctc
61 tggcggtgct cgtagtttga gaattctcgg tctcttggt gactgatcct gggagactgt
121 ggatgaataa tgctgggac gggccacccc ggaggctgcg aggcttggg gtcctggccg
181 ggggtgctct gctcgtgcc ctctggctcc tgtggtgct ggggtcagcc cctcgggta
241 ccccgccacc ccagccacg atcaccatcc ttgtctggca ctggcccttc actgaccagc
301 cccagagct gccagcgac acctgcacc gctacggcat cgcccgtgc cacctgagt
361 ccaaccgaag cctgctggcc agcgcgacg ccgtggtctt ccaccaccgc gactgtcaga
421 cccggcggtc ccacctgccc ctggcccagc ggcgcgagg gcagccctg gtgtgggct
481 ccattgagtc tcctagccac acccagggc tcagccacct ccgagggatc tcaactggg
541 tgctgagcta ccggcgcgac tcggacatct ttgtgcccata tggccgctg gageccact
601 gggggccctc gccaccgctg ccagccaaga gcagggtggc cgccctgggt gtcagcaact
661 tccaggagcg gcagctgctg gccaggctgt accggcagct ggcgctcat ctgcgggtg

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721 atgtcttttg ccggtgccaat ggacggccac tgtgcgccag ctgcctggtg cccaccgtgg
781 cccagtaccg cttctacctg tcttttgaga actctcagca ccgcgactac attacggaga
841 aattctggcg caacgcactg gtggctggca ctgtgccaat ggtgctgggg cccccacggg
901 ccacctatga ggccttcgtg ccggtgacg ccttcgtgca tgtgatgac tttggctcag
961 cccgagagct ggcggtttc ctcactggca tgaatgagag ccgataccaa cgcttctttg
1021 cctggcggtga caggctccgc gtgcgactgt tcaccgactg gcgggaacgt tctgtgcca
1081 tctgtgaccg ctaccacac ctaccgcga gccaaagtcta tgaggacctt gagggttggt
1141 ttcaggcctg agatccgctg gccgggggag gtgggtgtgg gtggaagggc tgggtgtcga
1201 aatcaaacca ccaggcatcc ggcccttacc ggcaagcagc gggctaaccg gaggtggggc
1261 acagaggtca ggaagcaggg gtgggggggtg cagggtggga ctggagcatg cagaggaggt
1321 gagagtggga gggaggtaac ggggtgctgc tgcggcagac gggaggggaa aggctgccga
1381 ggaccctccc caccctgaac aaatcttggg tgggtgaagg cttggtggga agagggtgaa
1441 aggcagggcc cttgggggctg gggggcacc cagcctgaag tttgtgggg ccaaaccttg
1501 gaccccgagc ttcctcggtg gcagaggccc tgtggtcccc gagacacagg cacgggtccc
1561 tgccacgtcc atagtctga ggtccctgtg tgtaggctgg ggcggggccc aggagaccac
1621 ggggagcaaa ccagcttgtt ctgggctcag ggaggaggg cggtggacaa taaacgtctg
1681 agcagtga aa aaaaaaaaaa a

(2) INFORMATION FOR SEQ ID NO:2704:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2704

1 ctgctcctgc gcggcagctg ctttagaagg tctcgagcct cctgtacctt cccagggatg
61 aaccgggacct tccctctgga aggcgagggt tccggccaca gtgagcgagg gccagggcgg
121 tgggcgcgcg cagagggaaa ccgatcagt tgagagagaa tcaagagtag cggatgaggc
181 gcttgtgggg cgcgcccg cgccctcgg agccctcgg gcggggctg ggagaaggag tgggcgagg
241 cgccgcagga ggctcccggg gcttggtcgg gccggtggg ccccgggcg agtggaaagaa
301 agggacgggc ggtgcccggg tggcgctcct ggccagctca ccttgccctg gcggtcggc
361 ccgcccggca cttgggagga gcaggcgagg gcccgcgcc tttgcattct gggaccgccc
421 ccttccattc ccgggcccag gcgagcggc agcgagcgt ggagcccgag ctacagcatg
481 agagccggtg ccgctcctcc acgctcggg acgctggtg agcgagggca gcgctgctg
541 ttcgcgcat gggggcaccg tggggtcgc cgacggcggc ggcgggcggg cgcgcgggg
601 ggcgccgagg ccgggggctg ccatggaccg tctgtgtgct ggcgcccgcc ggttgacgt
661 gtacggcgct gatcacctac gcttgtggg ggcagctgcc gccgctgccc tgggctcgc
721 caaccccgtc gcgaccggtg ggcgtgctgc tgtggtggga gcccttcggg gggcgcgata
781 gcgccccgag gcgccccct gactgccggc tgcgcttcaa catcagcggc tgccgctgc
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901 tgaaggggcc cccgactgg ccccgccct ggggcatcca ggcgacact gccgaggag
961 tggatctgcg cgtgttgac tacgaggagg cagcgcggc ggcaagaagc ctggcgacct
1021 ccagccccag gccccgggc cagcgctggg tttggatgaa cttcagatcg ccctcgact
1081 ccccggggct gcgaagcctg gcaagtaacc tcttcaactg gacgtctcc taccggcgcg
1141 actcgagcgt ctttgtgct tatgtctacc tctacccag aagccacccc ggcgaccg
1201 cctcaggcct ggcccccca ctgtccagga aacaggggct ggtggcatgg gtggtgagcc
1261 actgggacga gcgcccaggc cgggtccgct actaccacca actgagccaa catgtgaccg
1321 tggacgtgtt cggccggggc gggccggggc agccggtgcc cgaaatttgg cctctgcaca
1381 cagtggcccg ctacaagttc tacctggctt tcgagaactc gcagcacctg gattatatca
1441 ccgagaagct ctggcgcaac gcgttgctcg ctggggcggt gccggtggtg ctgggcccag
1501 accgtgcaa ctacgagcgc tttgtgccc gcggcgctt catccacgtg gacgacttcc
1561 caagtgcctc ctccctggc tcgtacctgc ttttcctcga ccgcaacccc gcggtctatc
1621 gccgtactt ccactggcg cgagctacg ctgtccacat cacctccttc tgggacgagc
1681 cttggtgccc ggtgtgccag gctgtacaga gggctgggga ccggcccaag agcatacggg
1741 acttggccag ctggttcgag cgtggaagcc gcgtccctt ggaagcgacc caggggaggc
1801 caagtgttca gcttttggat cctctactgt gcatctcctt gactgcgca tcatggagt
1861 aagttcttca aacaccatt tttgctctat gggaaaaaaa cgatttacc attaatatta
1921 ctacgacag agatgggggc ccggtttcca tttttttgc acagctagca attgggtccc
1981 ctttgtgct gatgggcatc attgtttagg ggtgaaggag ggggttcttc ctcacctgt
2041 aaccagtga gaaatgaaat agcttagcgg caagaagccg ttgaggcggg ttcctgaatt
2101 tccccatctg ccacaggcca ttttggggc ccgtgcagct tccaaatctc atacacaact
2161 gttcccatt caggttttct tggaccaagg tgaagcaaat tttgtgtgtt agaaggacc
2221 ttgttggtgg agagtggag gactgtggct gcagggtgga cttgtgtgtt tggattcctc
2281 acagccttgg ctctgagaa aggtgaggag ggcagtcaca gaggggccgc tgacttcttt
2341 cacaagtact atctgttccc ctgtcctgtg aatggaagca aagtgtgga ttgtccttgg
2401 aggaaactta agatgaatac atgcgtgtac ctactttac ataagaaatg tattcctgaa
2461 aagctgcatt taaatcaagt cccaattca ttgacttagg ggagttcagt atttaagtga
2521 accctatgga gaatttatcc ctttacaatg tgaatagtca tctcctaatt tgtttcttct
2581 gtctttatgt ttttctataa cctggatttt ttaaatcata ttaaaattac agatgtgaaa

2641 ataaagcaga agcaaccttt ttcctcttc ccagaaaacc agtctgtgtt tacagacaga
2701 agagaaggaa gccatagtgt cacttccaca caattattta ttcatgtct ttactggacc
2761 tgaaatttaa actgcaatgc cagtccgtga ggagtgtgg cattaccctc tgcagaacag
2821 tgaaaggtat tgcactacat tatggaatca tgcaaaaaa a
1 acgcgtggcg agcggaggca gcgtgcctg ttcgcgccat gggggcaccg tggggctcgc
61 cgacggcgcc ggcggggcg ggcggcggtt ggccggagg ccgggggctg ccatggaccg
121 tctgtgtgct ggcggccgccc ggcttgacgt gtacggcgct gatcacctac gcttgcgtgg
181 ggcagctgcc gccgctgccc tgggctgcgc caaccccgtc gcgaccggtg ggcgtgtctg
241 tgtggtggga gcccttcggg ggcggcgata gcgccccgag gccgccccct gactgccccg
301 tgcgcttcaa catcagcggc tgcgcctgc tcaccgaccg cgcgtccctac ggagaggctc
361 aggcctgtgt tttccaccac cgcgacctcg tgaaggggccc ccccgactgg cccccgccct
421 ggggcatcca ggcgcacact gccgaggagg tggatctgcg cgtgttggac tacgaggagg
481 cagcggcgcc ggcagaagcc ctggcgacct ccagccccag gcccccgggc cagcgtgtgg
541 tttggatgaa cttcgagtgc cctcgcact ccccggggt gcgaagcctg gcaagtaacc
601 tcttcaactg gacgctctcc taccgggccc actcggacgt cttgtgcct tatggctacc
661 tctaccccag aagccacccc ggcgaccgccc cctcaggcct ggccccgcca ctgtccagga
721 aacaggggct ggtggcatgg gtggtgagcc actgggacga gcgccaggcc cgggtccgct
781 actaccacca actgagccaa catgtgaccg tggacgtgtt cggccggggc gggccggggc
841 agcgggtgcc cgaaattggg ctccctgcaca cagtggcccg ctacaagttc tacctggctt
901 tcgagaactc gcagcacctg gattatatca ccgagaagct ctggcgcaac cgtgtgtctg
961 ctggggcggt gccgggtgtg ctggggcccag accgtgccaa ctacgagcgc tttgtgcccc
1021 gcggcgccct catccacgtg gacgacttcc caagtgcctc ctccctggcc tctgtacctg
1081 ttttctctga ccgcaacccc gcggtctatc gccgctactt cactggcgcc cggagctacg
1141 ctgtccacat cactccttc tgggacgagc cttggtgccc ggtgtgccag gctgtacaga
1201 gggctgggga ccggcccaag agcatacgga acttgccag ctggttcgag cggtag
1 cagatactct gaccatgga tcccctgggc ccggccaagc cacagtggtc gtggcgctgc
61 tgtctgacca cgtgtgtgt tcaagtgtgt atggctgtgt gttctctctc ctatctgcgt
121 gtgtctcaag acgatccac tgtgtacctt aatgggtccc gcttcccaga cagcacaggg
181 acccccgcgc actccatccc cctgatcctg ctgtggacgt ggcttttaa caaacccata
241 gctctgcccc gctgctcaga gatggtgctt ggcacggctg actgcaacat cactgccgac
301 cgcaaggtgt atccacaggc agacggggtc atcgtgcacc accgagaggt catgtacaac
361 cccagtgcgc agctcccacg ctccccgagg cggcaggggc agcagtgat ctggttcagc
421 atggagtccc caagccactg ctggcagctg aaagccatgg acggatactt caatctcacc
481 atgtcctaac gcagcgaact cgacatcttc acgcccactg gctggctgga gccgtgggtc
541 ggccagcctg cccaccacac gctcaacctc tcggccaaga ccgagctggt ggccctggga
601 gtgtccaaact gggggccaaa ctccgccagg gtgcgctact accagagcct gcaggcccat
661 ctcaaggtgg acgtgtacgg acgctccccc aagcccctgc cccagggaac catgatggag
721 acgctgtccc ggtacaagtt ctatctggcc ttcgagaact ccttgacccc cgactacatc
781 accgagaagc tgtggaggaa cgccctggag gctggggcgg tggccgtggt gctgggcccc
841 agcagaagca actacgagag gttcctgcgc cccgacgcct tcatccagct ggacgacttc
901 cagagcccca aggacctggc ccggtacctg caggagctgg acaaggacca cggccgctac
961 ctgagctact ttcgctggcg ggagacgctg cggcctcgtc ccttcagctg ggcactcgct
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1081 gcttggttca cctgagaggc ccggcatggg gcctgggctg ccaggg
1 aaggagcaca gttccaggcg gggtgagct agggcgtagc tgtgatttca ggggcacctc
61 tggcggtgct cgtgatttga gaatctcggt tctcttggct gactgaccc gggagactgt
121 ggatgaataa tgcgtgggac ggcgccaccc ggaggctgcg aggcttgggg gtcctggccg
181 ggggtggctct gctcgtgcc ctctggctcc tgtggctgct ggggtcagcc cctcggggta
241 ccccgccacc ccagcccacg atcaccatcc ttgtctggca ctggcccttc actgaccagc
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361 ccaaccgaag cctgctggcc agcggcgacg ccgtggtctt ccaccaccgc gagctgcaga
421 cccggcggtc ccacctgccc ctggcccagc ggccgagagg gcagccctg gtgtggcct
481 ccatggagtc tctagccac acccacggcc tcagccacct ccgaggcac ttcaactggg
541 tgcgtgagta ccggcgcgac tggacatct tttgtcccta tggccgctg gagccccact
601 gggggccctc gccaccgctg ccagccaaga gcagggtggc cgcctgggtg gtcagcaact
661 tccaggagcg gcagctgcgt gccaggctgt accggcagct ggccgctcat ctgcgggtg
721 atgtctttg ccgtgccaat ggacggccac tgtgcgccag ctgcctggtg cccaccgtg
781 cccagtaccg cttctacctg tctttgaga actctcagca ccgcgactac attacggaga
841 aattctggcg caacgcactg gtggctggca ctgtgccagt ggtgctgggg cccccaggg
901 cccactatga ggccttcgtg ccggtgcagc ccttcgtgca tgtggatgac tttggctcag
961 cccgagagct ggcggcttct ctcactggca tgaatgagag ccgataccaa cgttctttg
1021 cctggcggtg caggctccgc gtgcgactgt tcaccgactg gcgggaacgt ttctgtgcca
1081 tctgtgaccg ctacccacac ctaccccga gccaaagtcta tgaggacctt gagggttgg
1141 ttcaggcctg agatccgctg gccgggggag gtgggtgtg gtggaagggc tgggtgtcga
1201 aatcaaacca ccaggcatcc ggccttacc ggcaagcagc gggctaaccg gaggctggg
1261 acagaggtca ggaagcagg gtgggggggt caggtgggca ctggagcatg cagaggaggt
1321 agaggtggga gggaggtaac ggtgctgctg tgcggcagac gggaggggaa aggtgtccga
1381 ggacctccc caccctgaac aaatcttggg tgggtgaagg cctggctgga agagggtgaa

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1441 aggcagggcc cttggggctg gggggcacc cagcctgaag tttgtggggg ccaaacctgg
1501 gaccccgagc ttcctcggtg gcagaggccc tgtggtcccc gagacacagg cacgggtccc
1561 tgccacgtcc atagtctcga ggtccctgtg tgtaggctgg ggcggggccc aggagaccac
1621 ggggagcaaa ccagcttgtt ctgggctcag ggaggggagg cggtggacaa taaacgtctg
1681 agcagtga aa aaaaaaaaa a

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(2) INFORMATION FOR SEQ ID NO:2705:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2705

```

1 cccccctcca agataat tttt taaaaaacct tctcctttgc tcacctttgc ttccagcct
61 tcccatcccc ccaccgaaag caaatcattc aacgaccccc gacctccga cggcaggagc
121 cccccgacct ccaggcgga ccgcctccc tccccgggt tccgggccc gcgaggggc
181 gcgagcacag ccaggccat ggaggtagc ggcgaccagc cgcgtgggt gagccaccac
241 caccgcgcg tgctcaacgg gcagcaccg gacacgcacc acccgggcct cagccactcc
301 tacatggagc cggcgagta cccgctgcg gaggagggtg atgtgcttt taacatcgac
361 ggtcaaggca accacgtccc gccctactac ggaaactcgg tcagggccc ggtgcagagg
421 taccctccga ccaccacgg gagccaggtg tgccgcccgc ctctgcttca tggatcccta
481 ccctggctgg acggcgga aa gcccctgggc agccaccaca ccgcctccc ctggaatctc
541 agccccctt ccaagacgtc catccaccac ggctccccg ggccccctc cgtctacccc
601 ccggcctcgt cctcctcct gtccgggggc cagccagacc cgcacctct cacttcccg
661 cccacccgc cgaaggacgt cccccggac ccacgcgtg ccacccagc ctccggccgc
721 tcggcccggc aggacgagaa agagtgcctc aagtaccagg tgcccctgcc cgacagcatg
781 aagctggagt cgtccactc ccgtggcagc atgaccgcc tgggtggagc ctctcgtcg
841 acccaccacc ccataccacc ctaccgcgc tactgcccc agtacagctc cggactcttc
901 cccccagca gcctgtggg cggctcccc accggttcg gatgcaagtc caggcccaag
961 gcccggtcca gcacagaagg caggaggtgt gtgaactgtg gggcaacctc gacccactg
1021 tggcgcgag atggcacggg aactacctg tgcaacgcct gcgggctcta tcacaaaatg
1081 aacggacaga accggcccct cattaagccc aagcgaaggc tgtctgcagc caggagagca
1141 gggacgtcct gtgcgaactg tcagaccacc acaaccacac tctggaggag gaatgccaat
1201 ggggaccctg tctgcaatgc ctgtgggctc tactacaagc ttcacaatat taacagacc
1261 ctgactatga agaaggaagg catccagacc agaaaccgaa aaatgtctag caaatccaaa
1321 aagtgcacaa aagtgcagta ctactggag gacttcccc agaacagctc gtttaacccg
1381 gccgcctct ccagacacat gtctccctg agccacatct cgccttcag ccactccagc
1441 cacatgctga ccacgcccac gccgatgac ccgcatcca gcctgtcct tggaccacac
1501 caccctcca gcattgtcac cgccatgggt tagagccctg ctccatgctc acagggcccc
1561 cagcgagagt ccctgcagtc ccttcgact tgcatctttg caggagcagt atcatgaagc
1621 ctaaaacgca tggatatatg ttttggaa cagaaagcaa aattatgtt gccactttgc
1681 aaaggagctc actgtggtgt ctgtgttcca accactgaat ctggacccca tctgtgaata
1741 agccattctg actcatatcc cctatttaac aggtctctta gtgctgtgaa aaaaaaatg
1801 ctgaacattg catataactt atattgtaag aaatactgta caatgacttt attgcatctg
1861 ggtagctgta aggcataag gatgccaa gaatttaagga atatgggaga aatggtgtgg
1921 aaattaagaa gaaactaggt ctgatattca aatggacaaa ctgccagttt tgtttccttt
1981 cactggccac agttgttga tgcattaaaa gaaaaataaaa aaaag

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(2) INFORMATION FOR SEQ ID NO:2706:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2706

```

1 acacagagag aaaggctaaa gttctctgga ggatgtggct gcagagcctg ctgctcttgg
61 gcactgtggc ctgcagcatc tctgcaccg cccgctcgcc cagccccagc acgcagccct
121 gggagcatgt gaatgccatc caggaggccc ggcgtctcct gaacctgagt agagacactg
181 ctgctgagat gaatgaaaca gtagaagtca tctcagaaat gtttgacctc caggagccga
241 cctgcctaca gaccgcctg gagctgtaca agcaggccct gcggggcagc ctccaccaagc
301 tcaaggcccc cttgaccatg atggccagcc actacaagca gcactgccct ccaaccccg
361 aaacttctg tgcaacccag attatcacct ttgaaagttt caaagagaac ctgaaggact
421 ttctgcttgt catccccctt gactgtggg agccagtcga ggagtgaagc cggccagatg
481 aggtggcca agccggggag ctgctctctc atgaacaaag agctagaacac tcaggatggg
541 catcttgag ggaccaagg gtgggccaca gccatgggtg gagtggcctg gacctgcct
601 gggcacactg accctgatac aggcattgga gaagaatggg aatattttat actgacagaa
661 atcagtaata tttatatatt tatattttta aaatatttat ttattttatt atttaagttc
721 atattccata tttattcaag atgttttacc gtaataatta ttattaaaaa tagcttctaa
781 aaaaaaaaa

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(2) INFORMATION FOR SEQ ID NO:2707:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2707

1 ttctctctga ccagcaccat gcttctcctg gtgacaagcc ttctgctctg tgagttacca
61 caccagcat tcctcctgat ccagagaaa tcggatctgc gaacagtggc accagcctct
121 agtctcaatg tgaggtttga ctccaggacg atgaatttaa gctgggactg ccaagaaaac
181 acaaccttca gcaagtgttt cttaactgac aagaagaaca gactcgtgga acccaggctc
241 agtaacaacg aatgttcgtg cacatttcgt gaaatttgc tgcatgaagg agtcacattt
301 gaggttcacg tgaatactag tcaagagga tttcaacaga aactgcttta tccaaattca
361 ggaagggagg gtaccgctgc tcagaatttc tcctgtttca tctacaatgc ggatttaatg
421 aactgtacct gggcgagggg tccgacggcc ccccgtagc tccagtattt ttgtacata
481 cgaaactcaa agagaaggag ggagatccgg tgtccttatt acatacaaga ctcaggaacc
541 catgtgggat gtcacctgga taacctgtca ggattaacgt ctgcgaatta ctttctggtt
601 aacggaacca gccgagaaat tggcatccaa ttctttgatt cacttttgga cacaagaaa
661 atagaacgat tcaaccctcc cagcaatgtc accgtacgtt gcaacacgac gcactgcctc
721 gtacgggtgga aacagcccag gacctatcag aagctgtcgt acctggactt tcagtaccag
781 ctggacgtcc acagaaaaga taccagcctt ggcacggaaa acctactgat taatgtttct
841 ggtgatttgg aaaatagata caactttcca agctctgagc ccagagcaaa acacagtgtg
901 aagatcagag ctgcagacgt ccgcatcttg aattggagct cctggagtga agccattgaa
961 tttggttctt taggatacag cggctgttcc cgccagttcc acagatcaaa gacaaactga
1021 atgataacca tgaggtggaa gacgagatca tctgggagga attcacccca gaggaaggga
1081 aaggctaccg cgaagaggtc ttgaccgtga aggaaattac ctgagacca gaggggtgtag
1141 gaatggcatg gacatctccg cctccgcgac acgggggaac tgttttcttg atgatgctgt
1201 gaacctttat atcattttct atgtttttat taaaaacat gacatttggg gccaggcgcg
1261 gtggtcacg cctgtaatcc cag

(2) INFORMATION FOR SEQ ID NO:2708

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2708

1 ttctcagagt ggctgcagtc tcgctgctgg atgtgcacat ggtggtcatt ccctctgctc
61 acagggggcag gggctccccc ttactggact gaggttgccc cctgctccag gtccctgggtg
121 ggagcccatg tgaactgtca gtggggcagg tctgtgagag ctccctcac actcaagtct
181 ctctcacagt ggccagagaa gaggaaggct ggagtcagaa tgaggacca gggcgggcat
241 agcctgccc aaggccctg ggattacagg caggatgggg agccctatct aagtgtctcc
301 cagcggccac ccagccatt ccaggccagg aagtccaaac tgtgcccctc agagggaggg
361 ggcagcctca ggccatttca gactgcccag ggagggctgg agagccctca ggaaggcggg
421 tgggtgggct gtcggttctt ggaaaggttc attaatgaaa acccccaagc ctgaccacct
481 agggaaaaagg ctccacgttc ccagtgtgtg ctgataaggg ccaggagatt ccacagttca
541 ggtagtctcc ccgctccctt ggcattttgt ggtcaccatt aatcatttcc tctgtgtatt
601 taagagctct ttgtccagt agcccagcta cacagagaga aaggctaaag ttctctggag
661 gatgtggctg cagagcctgc tgccttggg cactgtggcc tgcagcatct ctgacccgc
721 ccgctcggcc agcccagca cgcagccctg ggagcatgtg aatgccatcc aggagggccc
781 cgtctcctg aacctgagta gagacactgc tgcgtgagatg gtaagtgaga gaatgtgggc
841 ctgtgctagg caccagtggc cctgactggc cagcctgtc agcttgataa catgacattt
901 tccttttcta cagaatgaaa cagtagaagt catctcagaa atgtttgacc tccaggtaa
961 atgcttctct ctgacatagc tttccagaag ccctgcccct ggggtggagg tggggactcc
1021 attttagatg gcaccacaca gggttgtcca ctttctctcc agtcagctgg ctgcaggagg
1081 agggggtagc aactgggtgc tcaagaggct gctggccgtg cccctatggc agtcacatga
1141 gctcctttat cagctgagcg gccatgggca gacctagcat tcaatggcca ggagtcacca
1201 ggggacaggt ggtaaagtgg gggctacttc atgagacagg agctgtgggt ttggggcgct
1261 cactgtgccc cgagaccaag tcctgttgag acagtgtga ctacagagag gcacagaggg
1321 gtttcaggaa caacccttgc ccaccagca ggtccagggt agggcccacc cccctctccc
1381 tgaatgatgg ggtgagagtc acctccttcc ctaaggctgg gctcctctcc aggtgccgct
1441 gaggggtggc tgggcggggc agtgagaagg gcaggttcgt gcctgccatg gacagggcag
1501 ggtctatgac tggacccagc ctgtgccctt cccaagccct actcctgggg gctgggggca
1561 gcagcaaaaa ggagtgggtg agagtcttct taccactgtg ggcacttggc cactgctcac
1621 cgacgaacga cattttccac aggagccgac ctgcctacag accgcctgg agctgtacaa
1681 gcagggcctg cggggcagcc tcaccaagct caagggcccc ttgaccatga tggccagcca
1741 ctacaagcag cactgccctc caaccccggt gagtgcctac ggcagggcct ccagcaggaa
1801 tgtcttaatc taggggggtg ggtcgacatg gggagagatc tatggctgtg gctgttcagg

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1861 accccagggg gtttctgtgc caacagttat gtaatgatta gccctccaga gaggaggcag
1921 acagcccatt tcattccaag gactcagagc cacagagcgc tgaagccac agtgctcccc
1981 agcaggagct gctcctatcc tggctattat tgtcattacg gtaaatgagg tcagagggtga
2041 gggcaaaccc aaggaaactt ggggcctgcc caaggccag aggaagtgcc caggcccaag
2101 tgccaccttc tggcaggact ttctctggc cccacatggg gtgcttgaat tgcagaggat
2161 caaggaaggg aggtactttg gaatggacaa ggacctcagg cactccttcc tgcgggaagg
2221 gagcaaatgt tgtggccttg actccactcc ttctgggtgc ccagagacga cctcagccca
2281 gctgccctgc tctgccctgg gacaaaaaag gcaggcgttt gactgccagg aaggccaacc
2341 tcaggctggc acttaagtca ggccttgac tctggctgcc actggcagag ctatgactc
2401 cttggggaac acgtgggtgg cagcagcgtc acctgacca ggtcagtggg tgtgtcctgg
2461 agtgggcctc ctggcctctg agttctaaga ggcagtagag aaacatgctg gtgcttctt
2521 cccccacgtt acccacttgc ctggactcaa gtgtttttta ttttctttt tttaaaggaa
2581 acttctctgt caaccagat tatcaccttt gaaagtttca aagagaacct gaaggacttt
2641 ctgcttgtca tcccccttga ctgctgggag ccagtcagg agtgagaccg gccagatgag
2701 gctggccaag ccggggagct gctctctcat gaaacaagag ctgaaactc aggatgttca
2761 tcttgagggg accaaggggt gggccacagc catggtggga gtggcctgga cctgccctgg
2821 gcacactgac cctgatacag gcatggcaga agaattggaa tattttatac tgacagaaat
2881 cagtaattat tatattttta tttttttaa atattttat attttttat ttaagttcat
2941 attccatatt tattcaagat gttttaccgt aataattatt attaaaaata tgcttctact
3001 tgtccagtgt tctagtttgt ttttaacat gagcaaatgc cat

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(2) INFORMATION FOR SEQ ID NO:2709:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2709

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1 acacagagag aaaggctaaa gttctctgga ggatgtggct gcagagcctg ctgctcttgg
61 gcaactgtggc ctgcagcatc tctgcaccgc cccgctcgc cagccccagc acgcagccct
121 gggagcatgt gaatgccatc caggaggccc ggcgtctcct gaacctgagt agagacactg
181 ctgctgagat gaatgaaaca gtagaagtca tctcagaaat gtttgacctc caggagccga
241 ctgacctaca gaccgcctg gagctgtaca agcaggcctc gcggggcagc ctcaccaagc
301 tcaagggccc cttgacctg atggccagcc actacaagca gcaactgcc ccaaccccg
361 aaacttctct tgcaacccag attatcacct ttgaaagttt caaagagaac ctgaaggact
421 ttctgcttgt catccccctt gactgctggg agccagtcga ggagtggagc cggccagatg
481 aggtctggca agccggggag ctgctctctc atgaaacaag agctagaaac tcaggatggg
541 catcttgagg ggaccaaggg gtgggccaca gccatggtgg gagtggcctg gacctgccct
601 gggcacactg accctgatac aggcattggc gaagaatggg aatattttat actgacagaa
661 ctcagtaata tttatatatt tatattttta aaattattat ttattttatt ttttaagttc
721 atattccata tttattcaag atgttttacc gtaataatta ttattaaaaa tagcttctaa
781 aaaaaaaaaa
1 ttctctctga ccagcaccat gttctcctg gtgacaagcc ttctgctctg tgagttacca
61 caccagcat tctcctgat cccagagaaa tcggtatctg gaacagtggc accagcctct
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181 acaaccttca gcaagtgttt cttaactgac aagaagaaca gactcgtgga acccaggctc
241 agtaacaacg aatgttctgt cacatttctg gaaatttgtc tgcataagg agtcacattt
301 gaggttcacg tgaatactag tcaaagagga tttcaacaga aactgcttta tccaaattca
361 ggaagggagg gtaccgctgc tcagaatttc tctgttttca tctacaatgc ggatttaagt
421 aactgtacct gggcgagggg tccgacggcc ccccgtagc tccagtattt tttgtacata
481 cgaaactcaa agagaaggag ggagatccgg tgtccttatt acatacaaga ctcaggaaac
541 catgtgggat gtcacctgga taacctgtca ggattaacgt ctcgcaatta ctttctgggt
601 aacggaacca gccgagaaat tggcatccaa ttctttgatt cacttttggg cacaagaaga
661 atagaacgat tcaacctctc cagcaatgtc accgtacgtt gcaacacgac gcactgcctc
721 gtacgggtga aacagcccag gacctatcag aagctgtcgt acctggactt tcagtaccag
781 ctggacgtcc acagaaagaa taccagcct ggcacggaaa acctactgat taatgtttct
841 ggtgatttgg aaaatagata caactttcca agctctgagc ccagagcaaa acacagtgtg
901 aagatcagag ctgcagacgt ccgcatcttg aattggagct cctggagtga agccattgaa
961 tttggttctc taggatacag cggtgttccc cgccagttcc acagatcaaa gacaaactga
1021 atgataacca tgaggtggaa gacgagatca tctgggagga attcacccca gaggaaggga
1081 aaggctaccg cgaagagggtc ttgaccgtga aggaatttac ctgagaccca gaggggttag
1141 gaatggcatg gacatctccg cctccgcgac acgggggaac tgtttcttg atgatgctgt
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1261 gtggctcacg cctgtaatcc cag
1 ttctcagagt ggctgcagtc tctgctgtgg atgtgcacat ggtggctatt cctctgctc
61 acaggggagc gggctcccc ttactggact gaggttgccc cctgctccag gtcctgggtg
121 agagcccatg tgaactgtca gtggggcagg tctgtgagag cccccctcac actcaagtct
181 ctctcacagt ggccagagaa gaggaaggct ggagtcagaa tgaggacca gggcgggcat
241 agcctgcccc aaggccctg ggattacagc caggatgggg agccctatct aagtgtctcc

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301 cacgccccac cccagccatt ccaggccagg aagtccaaac tgtgccccctc agaggggagg
361 ggagcctca ggccattca gactgccag ggaggctgg agagccctca ggaaggcggg
421 tgggtgggct gtcggttctt ggaaaggttc attaatgaaa accccaagc ctgaccacct
481 agggaaaagg ctcaccgttc ccatgtgtgg ctgataagg ccaggagatt ccacagtta
541 ggtagttccc ccgcctccct ggcattttgt ggtcaccatt aatcatttcc tctgtgtatt
601 taagagctct tttgccagt agcccagcta cacagagaga aaggctaaag ttctctggag
661 gatgtggctg cagagcctgc tgctcttggg cactgtggcc tgcagcatct ctgacccgc
721 ccgctcgccc agccccagca cgcagccctg ggagcatgtg aatgccatcc aggaggcccg
781 gcgtctcctg aacctgagta gagacactgc tgctgagatg gtaagtgaga gaatgtgggc
841 ctgtgctagg caccagtggc cctgactggc cacgcctgtc agcttgataa catgacattt
901 tccttttcta cagaatgaaa cagtagaagt catctcagaa atgtttgacc tcaggtaag
961 atgcttctct ctgacatagc tttccagaag cccctgccct ggggtggagg tgggactcc
1021 attttagatg gcaccacaca gggttgtcca ctttctctcc agtcagctgg ctgcaggagg
1081 agggggtagc aactgggtgc tcaagaggct gctggcctg cccctatggc agtcacatga
1141 gtccttttat cagctgagcg gccatgggca gacctagcat tcaatggcca ggagtcacca
1201 ggggacaggt ggtaaagtgg gggtcacttc atgagacagg agctgtgggt ttggggcgct
1261 cactgtgccc cgagaccaag tcctgttgag acagtgtgta ctacagagag gcacagaggg
1321 gtttcaggaa caacccttgc ccaccagca ggtccagggt agggccccc cccctctccc
1381 tgaatgatgg ggtgagagtc acctccttcc ctaaggctgg gctcctctcc aggtgccgct
1441 gatgtgggct tggcggggct agtgagaagg gcagggtcgt gcctgccatg gacagggcag
1501 ggtctatgac tggaccagc ctgtgccctt cccaagccct actcctgggg gctgggggca
1561 gcagcaaaaa ggagtgggtg agagtctctg taccactgtg ggcacttggc cactgctcac
1621 cgacgaacga cttttccac aggagccgac ctgcctacag acccgccctg agctgtacaa
1681 gcagggcctg cggggcagcc tcaccaagct caagggcccc ttgaccatga tggccagcca
1741 ctacaagcag cactgccctc caaccgcgt gagtgcctac ggcagggcct ccagcaggaa
1801 tgccttaatc taggggtgg ggtcgacatg gggagagatc tatggctgtg gctgttcagg
1861 accccagggt gtttctgtgc caacagttat gtaatgatta gccctccaga gaggaggcag
1921 acagccatt tcacccaag gagttagagc cacagagcgc tgaagccac agtgcctccc
1981 agcaggagct gtcctatcc tggtcattat tgtcattacg gttaatgagg tcagggtga
2041 gggcaaaccc aaggaaactt ggggcctgcc caaggccag aggaagtgcc caggcccaag
2101 tgccaccttc tggcaggact ttcctctggc cccacatggg gtgcttgaat tgcagaggat
2161 caaggaaggg aggtactttg gaattgacaa ggacctcagg cactccttcc tgcgggaagg
2221 gagcaaatgt tgtggccttg actccactcc ttctgggtgc ccagagacga cctcagccca
2281 gctgccctgc tctgccctgg gacaaaaaag gcaggcgttt gactgccagc aaggccaacc
2341 tcaggctggc acttaagtca ggcccttgac tctggctgcc actggcagag ctatgactc
2401 cttggggaac acgtgggtgg cagcagcgtc acctgaccca ggctagtggt tgtgtcctgg
2461 agtgggcctc ctggcctctg agttctaaga ggcagtagag aaacatgctg gtgttctctt
2521 cccccagctt acccacttgc ctggactcaa gtgtttttta ttttctttt tttaaaggaa
2581 acttctgtgt caaccagat tatcaccttt gaaagtttca aagagaacct gaaggacttt
2641 ctgcttgta tcccccttga ctgctgggag ccagtccagg agtgagaccg gccagatgag
2701 gctggccaag ccggggagct gctctctcat gaaacaagag ctagaaactc aggatgggtca
2761 tcttgagggt accaaggggt gggccacagc catggtggga gtggcctgga cctgccctgg
2821 gcacactgac cctgatacag gcatggcaga agaattggaa tattttatc tgacagaaat
2881 cagtaatat tttatattta tttttttaa atattttat tttttttat ttaagttcat
2941 attccatatt tttcaagat gttttaccgt aataattatt attaaaaata tgcttctact
3001 tgtccagtgt tctagtttgt ttttaacat gagcaaatgc cat

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(2) INFORMATION FOR SEQ ID NO:2710:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2710

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1 atcctggctg atatggtgaa accccatctc tactaaaaat acaaaaatta gctgggcgtg
61 gtgggtggcg catgtaatcc cagctactca ggaggctgag gcaggagaat tacttgaacc
121 tgggaggcag aggttgcagt gaaccgagat cgcgccattg cactccagtc tggcgacaga
181 gcgagactcc gtctctaaat aaataaataa ataaatttag ccttctactc aagaacttat
241 ctggctttgt cttaatgtaa aaataatttc tttttgctaa attattgaga gaaatttact
301 atttattagt gtttatcagt tttctttaa ctcaccactt tttgatgaat atgaaaatct
361 aaaaacttgg ccgggcgagc tggctcacac ctgtaatctc agcactttgg gaggccaagg
421 tggcgggatc atctgaggtc aggagttcaa gatcagcctg accaactatg tgaaaccctc
481 tctctactaa aaatacaaaa attagctggg cgtggtgggt ggtgcctgta attgtagcta
541 cttgggaggc tgaggcatga gaatcacttg aaccagaaa gcagagggtg cagttagctg
601 agatgggtgc actgactccc agcctgggtg acagagtgg actctgtcct aaaaaaaaaa
661 aaaaaaaaaa tggctgggct tggctgctca tgcctgtaat cccagcactt tgggagtcca
721 gcgtgggtgg atcacctgag gtcaggagtt caagtccagc ctgaccaaca tgggtgaaacc
781 ccgtctctac taaaaaagta caaaaaaat agccgggtgt ggtggcacac tctgtaatc
841 ccagctactc aggaggctga ggcaggagaa tcacttgaat ttgggagctg gagattgtag

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901 tcagccaaga tgggtgccatt gcactccagt ctgggtgaca gagtgagact ccatctcaaa
961 aaaaaaaaaa aaatcttaaa aactccttcc agaagattta atacttactt tcaccaaac
1021 acccgacttg agtatcacca ataacagagg atacagtcgg ttttcagtag agccttagta
1081 gcaaaagggtt ttcattttta tttttcagat acaggatcct gccctgtcac ccaagctgga
1141 gtgcagtgat gtgatcatag ctgactgcag cctcctgagt agctaggact ataggtgtat
1201 tataggacaa tttttaaaaa atttcattgt aaagacagga ttccactgtg ttgcccaggc
1261 tgcaagtctt ggccctcaagt gatcattcca cctttaactc ttgccctcaa gcagtcctcc
1321 cacctcagac tcccaaaatg ctgggattat ggggtgtgag caccatttcc agcctactag
1381 caagggtctt gttacatatt acttggcatg atttatgtaa tttaaaaaaaa ttgtttgttt
1441 ttcaaataga aaagtataat aacgaatatg cttttccaat aacataatcc ctttctcact
1501 tgagaatttt cctctaaaaa gatattgctag atttatttca tgctttatgt gccctgtgtg
1561 tgtcccttta taacctctc catatcattt agggatggtc tcagctgcaa gtaagaactg
1621 ccacaacagg tgatgtaagc ccaaaaaaaaa aaaaaaaaaa aaagcaaagc caagcaaac
1681 aaagcccatt taattatttc ccataataat aagtcggga gaagaagat tccagagttg
1741 gctcagcagc ttagtgacag caaggcccta ggctggcatt ttcttggcct tcccgatgg
1801 cccaagatga ctctcatggc ctcaaacatc acttcctcac atcctgtcag ggagaaagag
1861 gcaagtgcag aacaacaatt tgtggtgtt ggatcatttg tcagagagga agaagcttcc
1921 taaaaactcc gcctctgctg tttgacatcc tcatcctatt ccttggccat ggtgttatct
1981 catggtcact cctctatctg ccactgtaa gaggaactgg attgctatat tctgcttaga
2041 cacatgagga tgcagccac cttccagaa catgtgcgga attagatttc tacaacaca
2101 tttgtcttgc ttctgccaa ctctctcact agaatgcaca ttccataggg gcaaacattt
2161 ttgtctattt tgttcacagc tatattctca acacctagaa gagtgacaga aattcaataa
2221 atagttgtta agtgagcaaa tgaatgcag aataaggaaa agggatcatg gctattgagt
2281 aggtaaccag cagtgttgat caccccaac agcatacaac tccagtctga tgaacatcat
2341 gctactaagt ggccactcat caccgaagtc tctgacctta ctttttctct cttttctccc
2401 agggagtgcg ccataactgg cggtgtctct tgcgccaatg

```

(2) INFORMATION FOR SEQ ID NO:2711:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2711

```

1 ccaatgagcc tcccaattc ctctgctc ttagaagaca agatgtgtga gggcaacaag
61 accactatgg ccagcccca gctgatgcc ctggtgggtg tcctgagcac tatctgctt
121 gtcacagtag ggctcaacct gctggtgctg tatgccgtac ggagtgcag gaagctccac
181 actgtgggga acctgtacat cgtcagctc tcggtggcgg acttgatcgt gggcgccgc
241 gtcatgccta tgaacatcct ctacctgctc atgtccaagt ggtcactggg ccgtctctc
301 tgcctctttt ggctttccat ggactatgtg gccagcacag cgtccatttt cagtgtctt
361 atcctgtgca ttgatcgcta ccgctctgtc cagcagcccc tcaggtaacct taagtatcgt
421 accaagaccc gagcctcggc caccattctg ggggcctggg ttctctcttt tctgtgggtt
481 attcccatc taggctggaa tcacttcatg cagcagacct cgggtgcgcg agaggacaag
541 tgtgagacag acttctatga tgtcacctgg ttcaaggcca tgactgccat catcaactc
601 tacctgccca ccttgetcat gctctgggtc tatgccaaga tctacaaggc cgtacgacaa
661 cactgccagc accgggagct catcaatagg tccctccctt ctttctcaga aattaagctg
721 aggcagagga accccaaggg ggatgccaaag aaaccaggga aggagtctcc ctgggaggtt
781 ctgaaaagga agccaaaaga tgctgtgggt ggatctgtct tgaagtcacc atcccaaac
841 cccaaggaga tgaatcccc agttgtcttc agccaagagg atgatagaga agtagacaaa
901 ctctactgct ttccacttga tattgtgcac atgcaggctg cggcagaggg gagtagcagg
961 gactatgtag ccgtcaaccg gagccatggc cagctcaaga cagatgagca gggcctgaac
1021 acacatgggg ccagcgagat atcagaggat cagatgttag gtgatagcca atccttctct
1081 cgaacggact cagataccac cacagagaca gcaccaggca aaggcaaatt gaggagtggg
1141 tctaaccacag gcctggatta catcaagttt acttggaaga ggctccgctc gcattcaaga
1201 cagtatgtat ctgggttgca catgaaccgc gaaaggaagg ccgccaaca gttgggtttt
1261 atcatggcag cttcatcct ctgctggatc ctttatttca tcttcttcat ggtcattgcc
1321 ttctgcaaga actgttgcaa tgaacatttg cacatgttca ccatctggct gggctacatc
1381 aactccacac tgaacccct catctacccc ttgtgcaatg agaacttcaa gaagacattc
1441 aagagaattc tgcataatcg ctccaaaggg aggtctgtag gggatgcaac aaaatgatcc
1501 ttatgatgtc caacaaggaa atagaggacg aaggcctgtg tgttgccagg caggcacctg
1561 ggctttctgg aatccaaacc acagctctag gggcttgga gtttggaag ttcttaggca
1621 ccatagaaga acagcagatg gcggtgatca gcag

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(2) INFORMATION FOR SEQ ID NO:2712:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2712

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1 atgagcctcc ccaattcctc ctgcctctta gaagacaaga tgtgtgaggg caacaagacc
61 actatggcca gccccagct gatgccctg gtggtgtgct tgagcactat ctgcttggtc
121 acagtagggc tcaacctgct ggtgctgtat gccgtacgga gtgagcgga gctccacact
181 gtggggaacc tgtacatcgt cagcctctcg gtggcgagct tgatcgtggg tgccgtcgtc
241 atgcctatga acatcctcta cctgctcatg tccaagtgtg cactggggccg tctctctgc
301 ctcttttggc ttccatgga ctatgtggcc agcacagcgt ccattttcag tgtcttcac
361 ctgtgcattg atcgctaccg ctctgtccaag cagccctca ggtaccttaa gtatcgtacc
421 aagaccgag cctcgccac cattctgggg gcctggttct tctctttct gtgggttatt
481 cccattctag gctggaatca cttcatgcag cagacctcg tgcccgaga ggacaagtgt
541 gagacagact tctatgatgt cactgtgtc aaggtcatga ctgccatcat caacttctac
601 ctgcccacct tgctcatgct ctggttctat gccaaagtct acaaggccgt acgacaacac
661 tgccagcacc gggagctcat caataggctc ctcccttct tctcagaaat taagctgagg
721 ccagagaacc ccaaggggga tgccaagaaa ccagggaagg agtctccctg ggaggttctg
781 aaaaggaagc caaaagatgc tgggtgtgga tctgtcttga agtcaccatc ccaaaccccc
841 aaggagatga aatccccagt tgtcttcagc caagaggatg atagagaagt agacaaactc
901 tactgctttc cacttgatat tgtgcacatg caggctgcgg cagaggggag tagcagggac
961 tatgtagccg tcaaccggag ccatggccag ctcaagacag atgagcaggg cctgaacaca
1021 catggggcca gcgagatata agaggatcag atgttaggtg atagccaatc cttctctcga
1081 acggactcag ataccaccac agagacagca ccaggcaag gcaaatcgag gagtgggtct
1141 aacacaggcc tggattacat caagtttact tggaaaggcc tccgtcgca ttcaagacag
1201 tatgtatctg ggttgacat gaaccgcgaa aggaaggccg ccaaacagtt gggttttatc
1261 atggcagcct tcctcctctg ctggatccct tatttcatct tcttcaggt cattgccttc
1321 tgcaagaact gttgcaatga acatttgac atgttcacca tctggctggg ctacatcaac
1381 tccacactga acccctcat ctacccttg tgcaatgaga acttcaagaa gacattcaag
1441 agaattctgc atattcgctc ctaagggagg ctctgagggg atgcaacaaa atgacctta
1501 tgaatgtcaa caaggaaata gaggacgaag gcctgtgtgt tgccaggcag gcactgggc
1561 tttctggaat ccaaacaca gtcttagggg cttggtagtt tggaaagttc ttaggcaca
1621 tagaagaaca gcagatggcg gtgatcagca gagagattga actttgagga ggaagcagaa
1681 tctttgcaag aaagtcagac ctgtttcttg taactgggtt caaaaagaaa aaaaaaaaaa
1741 aa
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(2) INFORMATION FOR SEQ ID NO:2713:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2713

```
1 atcctggctg atatggtgaa acccctctc tactaaaaat acaaaaatta gctgggcgtg
61 gtggtggcg catgtaatcc cagctactca ggaggctgag gcaggagaat tacttgaacc
121 tgggaggcag aggttgagc gaaccgagat cgcgccattg cactccagtc tggcgacaga
181 gcgagactcc gtctctaaat aaataaataa ataaatttag ccttctactc aagaacttat
241 ctggccttgt cttaatgtaa aaataatttc ttttgcataa attattgaga gaaatttact
301 atttattagt gtttatcagt ttcttttaaa ctaccactt tttgatgaat atgaaaatct
361 aaaaacttgg ccgggcgcag tggctcacac ctgtaatctc agcactttgg gaggccaagg
421 tgggaggatc atctgaggtc aggagttcaa gatcagcctg accaaccatg tgaaaccctt
481 tctctactaa aaatacaaaa attagctggg cgtggtggtg ggtgcctgta attgtagcta
541 cttgggaggc tgaggcatga gaatcacttg aaccagaaa gcagaggttg cagtgaactg
601 agatggtgcc actgcactcc agcctgggtg acagagttag actctgtcct aaaaaaaaaa
661 aaaaaaaaaa tggctgggcg tgggtgccta tgcctgtaat ccagcactt tgggagttca
721 gcgtgggtgg atcacctgag gtcaggagtt caagtccagc ctgaccaaca tggtgaaacc
781 ccgtctctac taaaaaagta caaaaaaat agccgggtgt ggtggcacac tctgtaatc
841 ccagctactc aggaggctga ggcaggagaa tcaactgaat ttgggagctg gagattgtag
901 tcagccaaga tggtgccatt gcactccagt ctgggtgaca gagtgaact ccactcaaa
961 aaaaaaaaaa aaatcttaaa aactccttcc agaagattta atacttactt tcacccaacc
1021 acccgacttg agtatcacca ataacagagg atacagtcgg ttttcagtag agccttagta
1081 gcaagggttg ttcattttta ttttcagat acaggatctt gccctgtcac ccaagctgga
1141 gtgcagtgat gtgatcatag ctgactgcag cctcctgagt agctaggact ataggtgtat
1201 tataggacaa tttttaaaaa atttcattgt aaagacagga ttccactgtg ttgccaggc
1261 tgcaagtctt ggcctcaagt gatcattcca cctttaactc ttgccctcaa gcagtcctcc
1321 cactcagac tccaaaatg ctgggattat ggggtgtgag caccatttcc agcctactag
1381 caagggtctt gttacatatt acttggcatg atttatgtaa tttaaaaaaa ttgtttgttt
1441 ttcaaataga aaagtaaaat aacgaatatg cttttccaat aacataatcc ccttctact
1501 ttgaaatttt cctctaataa gatatgctag atttatttca tgctttatgt gcctctgggtg
1561 tgtcccttta taacctctc catatcattt agggatggtc tcagctgcaa gtaagaactg
1621 ccacaacagg tgatgtaagc caaaaaaaa aaaaaaaaaa aaagcaaagc caagcaaac
1681 aaagccatt taattatttc ccataataat aagtctggga gaaagaagat tccagagttg
1741 gctcagcagc ttagtgacag caaggcccta ggctggcatt ttcttggcct tcccgatggt
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1801 cccaagatga ctctcatggc ctcaaacatc acttcctcac atcctgtcag ggagaaagag
1861 gcaagtgaagc aacaacaatt tgtggtgttt ggatcatttg tcagagagga agaactgtcc
1921 taaaaactcc gcctctgtcg ttgacatcc tcacccattt ccttgcccat ggtggtatct
1981 catggtcact cctctatctg ccactgtaaa gaggaactgg attgtatat tctgcttaga
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2101 tttgtcttgc ttctgcccac ctctctcact agaatgcaca ttccataggg gcaaacattt
2161 ttgtctattt tgttcacagc tatattctca acacctagaa gagtgacaga aattcaataa
2221 atagttgtta agtgagcaaa tgaatgcacg aataaggaaa aggttacatg gctattgagt
2281 aggttaaccag cagtgttgat caccaccaac agcatacaac tccagtctga tgaacatcat
2341 gctactaagt ggccactcat cacccaagtc tctgacctta ctttttctct ctttttctcc
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1 ccaatgagcc tccccaatc ctcctgcctc ttagaagaca agatgtgtga gggcaacaag
61 accactatgg ccagcccccac gctgatgccc ctggtggtgg tccctgagcac tatctgcttg
121 gtcacagtag ggctcaacct gctggtgctg tatgccgtac ggagtgaagc gaagctccac
181 actgtgggga acctgtacat cgtcagcctc tcggtggcgg acttgatcgt ggtgcccgtc
241 gtcatgccta tgaacatcct ctacctgtc atgtccaaat ggtcactggg ccgtcctctc
301 tgccctctttt ggctttccat ggactatgtg gccagcacag cgtccatttt cagtgtcttc
361 atcctgtgca ttgatcgcta ccgctctgtc cagcagcccc tcaggtacct taagtatcgt
421 accaagaccg gagcctcggc caccattctg ggggcctggt ttctctcttt tctgtgggtt
481 attcccatc taggctggaa tcacttcacg cagcagacct cgggtgcgccc agaggacaag
541 tgtgagacag acttctatga tgtcacctgg ttcaaggcca tgactgcat catcaacttc
601 tacctgcccc ccttgctcat gctctggttc tatgccaaag tctacaaggc cgtacgacaa
661 cactgccagc accgggagct catcaatagg tccctccctt ccttctcaga aattaagctg
721 agggcagaga accccaaggg ggatgccaag aaaccaggga aggagtctcc ctgggaggtt
781 ctgaaaagga agccaaaaga tgctgtggtt ggatctgtct tgaagtccacc atcccaaac
841 cccaaggaga tgaatcccc agttgtcttc agccaagagg atgatagaga agtagacaaa
901 ctctactgct ttccacttga tattgtgcac atgcaggctg cggcagaggg gagtagcagg
961 gactatgtag ccgtcaaccg gagccatggc cagctcaaga cagatgagca gggcctgaac
1021 acacatgggg ccagcgagat atcagaggat cagatgttag gtgatagcca atccttctct
1081 cgaacggact cagataccac cacagagaca gcaccaggca aaggcaaat gaggagtggg
1141 tctaacacag gcctggatta catcaagttt acttggaaga ggctccgctc gacttcaaga
1201 cagtatgtat ctgggttgca catgaaccgc gaaaggaagg ccgccaacaa gttgggtttt
1261 atcatggcag ccttcacctc ctgctggatc ccttatttca tcttcttcat ggtcattgcc
1321 ttctgcaaga actgttgcaa tgaacatttg cacatgttca ccatctgggt gggctacatc
1381 aactccacac tgaacccctc catctacccc ttgtgcaatg agaacttcaa gaagacattc
1441 aagagaattc tgcatattcg ctcttaaggg aggtcttgag gggatgcaac aaaatgatcc
1501 ttatgatgtc caacaaggaa atagaggacg aaggcctgtg tgttgccagg caggcacctg
1561 ggctttctgg aatccaaacc acagtcttag gggcttggtg gtttggaag ttcttaggca
1621 ccatagaaga acagcagatg gcggtgatca gcag
1 atgagcctcc ccaattcctc ctgcctctta gaagacaaga tgtgtgaggg caacaagacc
61 actatggcca gccccagct gatgccctg gtggtggtcc tgagcactat ctgcttggtc
121 acagtgggc tcaacctgct ggtgctgtat gccgtacgga gtgagcggaa gctccacact
181 gtggggaacc tgtacatcgt cagcctctcg gtggcgact tgatcgtggg tgccgtctgc
241 atgacctaga acatcctcta cctgtcctat tccaagtggc cactgggccc tctctctgc
301 ctcttttggc ttccatgga ctatgtggcc agcacagcgt ccattttcag tgtcttcatc
361 ctgtgcattg atcgctaccg ctctgtccag cagccctca ggtaccttaa gtatcgtacc
421 aagaccgag cctcgccac cattctggg gcctggttct tctcttttct gtgggttatt
481 cccattctag gctggaatca cttcatgcag cagacctcgg tgcgccgaga ggacaagtgt
541 gagacagact tctatgatgt cacctggttc aaggtcatga ctgccatcat caacttctac
601 ctgcccacct tgctcatgct ctggttctat gccaatatct acaaggccgt acgacaacac
661 tgccagcacc gggagctcat caataggctc ccccttctc tctcagaaat taagtgtagg
721 ccagagaacc ccaaggggga tgccaagaaa ccagggaagg agtctccctg ggaggttctg
781 aaaaggaagc caaaagatgc tgggtggtga tctgtcttga agtcaccatc ccaaaccccc
841 aaggagatga aatccccagt tgtcttcagc caagaggatg atagagaagt agacaaactc
901 tactgctttc cacttgatat tgtgcacatg caggctgcgg cagaggggag tagcagggac
961 tatgtagccg tcaaccggag ccatggccag ctcaagacag atgagcaggg cctgaacaca
1021 catggggcca gcgagatct agaggatcag atgttaggtg atagcaatc cttctctcga
1081 acggactcag ataccaccac agagacagca ccaggcaaaag gcaaatgtag gagtgggtct
1141 aacacaggcc tggattacat caagtttact tggaaagagg tccgctcgca ttcaagacag
1201 tatgtatctg ggttgacat gaaccgcgaa aggaaggccg ccaaacagtt gggttttatc
1261 atggcagcct tcatcctctg ctggatccct tatttcatct tcttcatggt cattgccttc
1321 tgcaagaact gttgcaatga acatttgac atgttcacca tctggctggg ctacatcaac
1381 tccacactga acccctctc ctacccttg tgcaatgaga acttcaagaa gacattcaag
1441 agaattctgc atattcgctc ctaaggaggg ctctgagggg atgcaacaaa atgactctta
1501 tgaatgtccaa caaggaaata gaggacgaag gcctgtgtgt tgccaggcag gcacctggg
1561 tttctggaat ccaaacacaa gtcttagggg cttggtagtt tggaaagttc ttaggcacca
1621 tagaagaaca gcagatggcg gtgatcagca gagagattga actttgagga ggaagcagaa
1681 tctttgcaag aaagtacagc ctgtttcttg taactgggtt caaaaagaaa aaaaaaaaaa

1741 aa

(2) INFORMATION FOR SEQ ID NO:2714:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: _ base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2714

```
1  cacgcgtccg cgagaaggag gactcgcaag cctcggcggc ccggaaccgg cctcggactg
61  tcgacggaac ctgaggccgc ttgccctccc gccccatgga ggggcccccg gggctgcggc
121 cgggcgcggg cgggccctgg gagatgcggg agcggctggg caccggcggc ttcgggaacg
181 tctgtctgta ccagcatcgg gaacttgatc tcaaaatagc aattaagtct tgtcgcctag
241 agctaagtac caaaaacaga gaacgatggt gccatgaaat ccagattatg aagaagttga
301 accatgccaa tgttgtaaag gcctgtgatg ttcctgaaga attgaatatt ttgattcatg
361 atgtgcctct tctagcaatg gaatactgtt ctggaggaga tctccgaaag ctgctcaaca
421 aaccagaaaa ttgttggtga cttaaagaaa gccagatact ttctttacta agtgatatag
481 ggtctgggat tcgatatatt catgaaaaca aaattatata tcgagatcta aaacctgaaa
541 acatagtctt tcaggatggt ggtggaagaa taatacataa aataattgat ctgggatatg
601 ccaaagatgt tgatcaagga agtctgtgta catcttttgt gggaacactg cagtatctgg
661 ccccgagact ctttgagaat aagccttaca cagccactgt tgattattgg agctttggga
721 ccatggtatt tgaatgtatt gctggatata ggcctttttt gcatcatctg cagccattta
781 cctggcatga gaagattaag aagaaggatc caaagtgtat atttgcattg gaagagatgt
841 caggagaagt tcggtttagt agccatttac ctcaacaaaa tagcctttgt agtttaatag
901 tagaaccatg ggaaaactgg ctacagttag tgttgaattg ggaccctcag cagagaggag
961 gacctgttga ccttactttg aagcagccaa gatgttttgt attaatgtat cacattttga
1021 atttgaagat agtacacatc ctaaatatga cttctgcaaa gataatttct tttctgttac
1081 cacctgatga aagtcttcat tcaactacag ctctgtattg gcgtgaaact ggaataaata
1141 ctggttctca agaacttctt tcagagacag gaatttctct ggatcctcgg aaaccagcct
1201 ctcaatgtgt tctagatgga gtttagaggc gtgatagcta tatggtttat ttgtttgata
1261 aaagtaaaac tgtatatgaa gggccatttg cttccagaag tttatctgat tgtgtaaat
1321 atattgtaca ggacagcaaa atacagcttc caattatata gctgcgtaaa gtgtggctg
1381 aagcagtgca ctatgtgtct ggactaaaaa aagactatag caggctcttt cagggacaaa
1441 gggcagcaat gttaagtctt cttagatata atgctaactt aacaaaaatg aagaacactt
1501 tgatctcagc atcacaacaa ctgaaagcta aattggagtt ttttcacaaa agcattcagc
1561 ttgacttgga gagatacagc gagcagatga cgtatgggat atcttcagaa aaaaatgctaa
1621 aagcatggaa agaaatggaa gaaaaggcca tccactatgc tgaggttggt gtcattggat
1681 acctggagga tcagattatg tctttgcatg ctgaaatcat ggagctacag aagagccctt
1741 atggaagacg tcaggagacg ttgatggaat ctctggaaca gcgtgccatt gatctatata
1801 agcagttaaa acacagacct tcagatcact cctacagtga cagcacagag atggtgaaaa
1861 tcattgtgca cactgtgcag agtcaggacc gtgtgctcaa ggagctgttt ggtcatttga
1921 gcaagtgtgt gggctgtaag cagaagatta ttgatctact ccctaagtg gaagtggccc
1981 tcagtaatat caaagaagct gacaatactg tcatgttcat gcagggaaaa aggcagaaag
2041 aaatatggca tctccttaaa attgcctgta cacagagttc tgcccggctc cttgtaggat
2101 ccagtctaga aggtgcagta acccctcaga catcagcatg gctgcccccg acttcagcag
2161 aacatgatca ttctctgtca tgtgtggtaa ctccctcaaga tggggagact tcagcacaaa
2221 tgatagaaga aaatttgaac tgcttgggcc atttaagcac tattattcat gaggcaaatg
2281 aggaacaggg caatagtatg atgaatcttg attggagttg gttaacagaa tgagttgtca
2341 cttgttctct gtccccaac ctatggaagt tgttgctata catgttgga atgtgtttt
2401 ccccatgaa accattcttc agacatcagt caatggaaga aatggctatg aacagaaact
2461 acatttctac tatgatcaga agaacatgat tttaacaagta taacagtttt gagtaattca
2521 agcctctaaa cagacaggaa tttagaaaaa gtcaatgtac ttgtttgaa atttgtttta
2581 ataccacagc tatttagaag catcatcacg acacatttgc cttcagctctt ggtaaaacat
2641 tacttattta actgattaaa aataccttct atgtattagt gtcaactttt aacttttggg
2701 cgtaagacaa agtgtagttt tgtatacaga gaagaaaacc tcaagtaata ggcattttta
2761 gtaaaagtct acctgtgttt ttttctaaaa aggctgctca caagttctat ttcttgaaga
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2881 ggtgtaatca ttttaaatc cactgaaaat ttaacagtat ccccttctca tcgaagggat
2941 tgtgtatctg tgcttctaata attagttggc tttcataaat catgttgttg tgtgtattatg
3001 tatttaagat gtacatttaa taatatcaaa gagaagatgc ctgttaattt ataattgatt
3061 tgaaaattac atgttttttc atttgtaaaa atgagtcatt tgtttaaaca atctttcatg
3121 tcttgtcata caaatttata aaggtctgca ctctttatc tgtaattgta attccaaaat
3181 caaaaaagct ctgaaaacaa ggtttccata agcttggtga caaaattcat ttgcttgcaa
3241 tctaattctg actgaccttg aatcttttta tcccatttag tgtgaatatt cctttatttt
3301 gctgcttgat gatgagaggg agggctgctg ccacagactg tggtaggggc tggtaaatgt
3361 agtatggtat atgcacaaaa ctacttttct aaaatctaaa atttcataa tctgaaacaa
3421 cttgccccaa gggtttcaga gaaaggactg tggacctcta tcatctgcta agtaatttag
3481 aagatattat ttgtcttaaa aaatgtgaaa tgcttttata ttctaattag ttttctcttt
3541 gtgtattaaa tgggttttta attaaaaaaa aaaaaaaa
```

(2) INFORMATION FOR SEQ ID NO:2715:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2715

```

1 gcccgcgtta agattcccgc attttaatgt ttccagggg gtgtcatagc cccgggtttg
61 gccgccccag cccgccttc cccgccccgg ggagcccgcc cccttccccg cgtccctgcc
121 gacagagtta gcacgacatc agtatgagct ggtcaccttc cctgacaacg cagacatgtg
181 gggcctggga aatgaaagag cgccttgagg cagggggatt tggaaatgtc atccgatggc
241 acaatcagga aacaggtgag cagattgcca tcaagcagtg ccggcaggag ctcagcccc
301 ggaaccgaga gcggtggtgc ctggagatcc agatcatgag aaggctgacc caccacaatg
361 ttgttggtgc ccgagatgtc cctgagggga tgcagaactt ggcgcccaat gacctgcccc
421 tgctggccat ggagtactgc caaggaggag atctccgga gtacctgaac cagtttgaga
481 actgctgtgg tctgcgggaa ggtgccatcc tcaccttgtc gactgacatt gcctctgcgc
541 ttagatacct tcatgaaaac agaatacctc atcgggatct aaagccagaa aacatcgtcc
601 tgcagcaagg agaacagagg ttaatacaca aaattattga cctaggatat gccaaaggagc
661 tggatcaggg cagtctttgc acatcattcg tggggaccct gcagtacctg gccccagagc
721 tactggagca gcagaagta acagtgcacg tcgactactg gagcttcggc accctggcct
781 ttgagtgcac caggggttc cggcccttcc tccccactg gcagcccggt cagtggcatt
841 caaaagtgcg gcagaagagt gaggtggaca ttgttgttag cgaagacttg aatggaacgg
901 tgaagtttcc aagctcttta ccctacccca ataactttaa cagtgtcctg gctgagcgac
961 tggagaagtg gctgcaactg atgctgatgt ggcacccccg acagaggggc acggatccca
1021 cgtatggggc caatggctgc ttcaaggccc tggatgacat cttaaactta aagctggttc
1081 atactttgaa catggtcacg ggcaccatcc acacctacc tgtgacagag gatgagagtc
1141 tgcagagctt gaaggccaga atccaaagg acacgggcat ccagaggag gaccagagc
1201 tgctgcagga agcgggctg gcgttgatcc ccgataagcc tgccactcag tgtatttcag
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1321 gtaaaatcac ctatgagact cagatctccc cacggcccca acctgaaagt gtcagctgta
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1441 tctggcacag catccagacc ctgaaggaag attgcaaccg gctgcagcag ggacagcgag
1501 ccgccaatgat gaatctcctc cgaaacaaca gctgcctctc caaaatgaag aattccatgg
1561 cttccatgtc tcagcagctc aaggccaagt tggatttctt caaaaccagc atccagattg
1621 acctggagaa gtacagcgag caaacggagt ttgggatcac atcagataaa ctgctgctgg
1681 cctggaggga aatggagcag gctgtggagc tctgtgggag ggagaacgaa gtgaaactcc
1741 tggtagaacg gatgatggct ctgcagaccg acatttggtg ctacagagg agccccatgg
1801 gccggaagca ggggggaaac ctggacgacc tagaggagca agcaaggagg ctgtacagga
1861 gactaaggga aaaacctcga gaccagcgaa ctgaggggtg cagtcaggaa atggtagcgc
1921 tgctgcttca ggcaattcag agcttcgaga agaaagtgcg agtgatctat acgcagctca
1981 gtaaaactgt ggtttgcaag cagaaggcgc tggaaactgt gcccaagggt gaagagggtg
2041 tgagcttaat gaatgaggat gagaagactg ttgtccggct gcaggagaag cggcagaagg
2101 agctctggaa tctcctgaag attgcttgta gcaaggtccg tggctctgtc agtggaagcc
2161 cggatagcat gaatgcctct cgaactagcc agcctgggca gctgatgtct cagccctcca
2221 cggcctccaa cagcttacct gagccagcca agaagagtga agaactggtg gctgaagcac
2281 ataacctctg caccctgcta gaaaatgcca tacaggacac tgtgagggaa caagaccaga
2341 gtttcacggc cctagactgg agctggttac agacggaaga agaagagcac agctgcctgg
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2461 ttgtgcagtg gggggactcg acccctgac atggggctgc ctggagcagg ccgctgacg
2521 tggggctgcc tggcccggc tctcacatgg tggttcctgc tgactgatg gccaggggt
2581 ctctgggtatc cagatggagc tctcgttcc tcagcagctg tgactttcac ccaggacca
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2701 cagaggccca gcgcacatcg ctggccccc aaacgttcag ggtacagcc atggcagctc
2761 ctctctctgc cgtgagaaaa gtgcttgagg tacggtttgc cacacacgtg actggacagt
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2881 ctgctctcca aaggccctgc tccctgtcct ctctcacttt acagcttggt ttctctctgg
2941 attcagcttc tctaaacag acagttaa atagttgag gcctggcccc atcctcactt
3001 cctcttttta ttctactgct gctaaaattg tgtttttacc tacaaaaaaa aaaaaaaa

```

(2) INFORMATION FOR SEQ ID NO:2716:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2716

```

1 ggcacgagca tggccctgt gatccagggt gggaaactaa ggccagaga agtgaggacc
61 ccgcagacta tcaatcccag tctcttcccc tcaactccctg tgaagctctc cagcatcatc

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121 gaggtcccat cagcccttgc cctgttggat gaataggcac ctctggaaga gccaaactgtg
181 tgagatggtg cagcccagtg gtggcccgcc agcagatcag gacgtactgg gcgaagagtc
241 tccctctggg aagccagcca tgctgcacct gccttcagaa cagggcgctc ctgagaccct
301 ccagcgctgc ctggaggaga atcaagagct ccgagatgcc atccggcaga gcaaccagat
361 tctgcgggag cgctgcgagg agcttctgca tttccaagcc agccagaggg aggagaagga
421 gttcctcatg tgcaagttcc aggaggccag gaaactggtg gagagactcg gcctggagaa
481 gctcgatctg aagaggcaga aggagcaggc tctgcgggag gtggagcacc tgaagagatg
541 ccagcagcag atggctgagg acaaggcctc tgtgaaagcc caggtgacgt ccttgctcgg
601 ggagctgcag gagagccaga gtcgcttggg ggctgccact aaggaaatgcc aggtcttgga
661 gggtcgggccc cgggcggcca gcgagcaggc gcggcagctg gagagtgaac gcgaggcgct
721 gcagcagcag cacagcgtgc aggtggacca gctgcgcatg cagggccaga gcgtggaggc
781 cgcgctccgc atggagcgc aggcgcctc ggaggagaag aggaagctgg cccagtgtga
841 ggtggcctat caccagctct tccaagaata cgacaaccac atcaagagca gcgtggtggg
901 cagtgcgagg aagcgaggaa tgcagctgga agatctcaaa cagcagctcc agcaggccga
961 ggagggccctg gtggccaaac agggagtgtg cgataagctg aaggaggagg ccgagcagca
1021 caagattgtg atggagaccg ttccggtgct gaaggcccg gcggatatct acaaggcgga
1081 cttccaggct gagaggcagg cccgggagaa gctggccgag aagaaggagc tctgcagga
1141 gcagctggag cagctgcaga gggagtacag caaactgaag gccagctgtc aggagtcggc
1201 caggatcgag gacatgagga agcggcatgt cgaggtctcc cagggccctc tgccccccgc
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1381 gatacatgtc atggagtga ttgagtggg ccggccagtg caaggccact gcctgccga
1441 ggacgtgccc gggaccgtgc agtctgcgtc ttctctccc gcctgcctag cccaggatga
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1561 accttacgtc tcagctgttg atccgctggt cccctctttt ggggtagatg cggccccgag
1621 caggcctgac tcgctgctct tttgttccc ttctgtctgc tcgaaccat tgccctgggc
1681 taatccctcc ctcttctcc acccgccact ggggaagtca agaattgggc ctggggctct
1741 caggggagaa tgcttccctt ggcagagctg ggtggcagct cttctctcca ccggacaccg
1801 acccgcccgc cgctgtgccc tgggagtgtt gccctcttac catgcacacg ggtgctctcc
1861 ttttgggctg catgctattc cattttgag ccagaccgat gtgtatttaa ccagtcacta
1921 ttgatggaca tttgggtgtt ttcccatctt tttgttacca taaataatgg catagtaaaa
1981 aaaaaaaaaa aaaa

(2) INFORMATION FOR SEQ ID NO:2717:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2717

1 cagcgctccg cgagaaggag gactcgcaag cctcggcgcc cgggaaccgg cctcggactg
61 tcgacggaac ctgaggccgc ttgccctccc gccccatgga gcggcccccg gggctgcggc
121 cgggcccggg cgggcccctg gagatgcggg agcggctggg caccggcgcc ttcgggaacg
181 tctgtctgta ccagcatcg gaacttgatc tcaaaatagc aattaagtct tgcgcctag
241 agctaagtac caaaaacaga gaacgatggt gccatgaaat ccagattatg aagaagtga
301 accatgccaa tgttgtaaag gcctgtgatg ttctgaaga attgaatatt ttgattcatg
361 atgtgcctct tctagcaatg gaatactgtt ctggaggaga tctccgaaag ctgctcaaca
421 aaccagaaaa ttgtgtgga cttaaagaaa gccagatact ttctttacta agtgataag
481 ggtctgggat tcgatatttg catgaaaaca aaattataca tcgagatcta aaacctgaaa
541 acatagtctt tcaggatggt ggtggaaaga taatacataa aataattgat ctgggatatg
601 ccaaagatgt tgatcaagga agtctgtgta catcttttgt gggaacactg cagtatctgg
661 cccagagct ctttgagaat aagccttaca cagccactgt tgattattgg agctttggga
721 ccatggtatt tgaatgtatt gctggatata ggcctttttt gcatcatctg cagccattta
781 cctggcatga gaagattaag aagaaggatc caaagtgtat atttgcattg gaagagatgt
841 caggagaagt tcggtttagt agccatttac ctcaaccaaa tagcctttgt agtttaatag
901 tagaaccat ggaaaactgg ctacagttga tgttgaaatt ggaccctcag cagagaggag
961 gacctgttga cttactttg aagcagccaa gatgttttgt attaatggat cacattttga
1021 atttgaagat agtacacatc ctaaatatga cttctgcaaa gataatttct tttctgttac
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1141 ctggttctca agaacttctt tcagagacag gaatttctct ggtatcctcg aaaccagcct
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1381 aagcagtga ctatgtgtct ggactaaaag aagactatag caggctcttt cagggacaaa
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1561 ttgacttgga gagatacagc gagcagatga cgtatgggat atcttcagaa aaaatgctaa
1621 aagcatggaa agaaatggaa gaaaaggcca tccactatgc tgaggttggg gtcattggat

1681 acctggagga tcagattatg tctttgcatg ctgaaatcat ggagctacag aagagcccct
1741 atggaagacg tcagggagac ttgatggaat ctctggaaca gcgtgccatt gatctatata
1801 agcagttaaa acacagacct tcagatcact cctacagtga cagcacagag atgggtgaaaa
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1921 gcaagttgtt gggctgtaag cagaagatta ttgatctact ccctaagggtg gaagtggccc
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2101 ccagtctaga aggtgcagta acccctcaga catcagcatg gctgcccccg acttcagcag
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2221 tgatagaaga aaatttgaac tgccttggcc atttaagcac tattattcat gaggcaaatg
2281 aggaacaggg caatagtatg atgaatcttg attggagttg gttaacagaa tgagtgttca
2341 cttgttcaact gtccccaac ctatggaagt tgttgctata catgttgaa atgtgttttt
2401 ccccatgaa accattcttc agacatcagt caatggaaga aatggctatg aacagaaact
2461 acatttctac tatgatcaga agaacatgat tttaacagta taacagtttt gagtaattca
2521 agcctctaaa cagacaggaa tttagaaaaa gtcaatgtac ttgtttgaat atttgtttta
2581 ataccacagc tatttagaag catcatcacg acacatttgc cttcagtcct ggtaaaacat
2641 tactatttta actgattaaa aataccttct atgtattagt gtcaactttt aacttttggg
2701 cgtaagacaa agtgtagttt tgtatacaga gaagaaaacc tcaagtaata ggcattttta
2761 gtaaaagtct acctgtgttt ttttctaaaa aggtgtctca caagtcttat ttcttgaaga
2821 ataaattcta cctccttggt ttgactgaa caggttctct tcctggcatc ataaggagtt
2881 ggtgtaatca ttttaaatc cactgaaaat ttaacagtat ccccttctca tcgaagggat
2941 tgtgtatctg tgcttctaatt attagtgtgc ttctataaat catgttgttt tgtgtatatg
3001 tatttaagat gtacatttaa taatatcaaa gagaagatgc ctgttaattt ataattgtatt
3061 tgaaaattac atgttttttc atttgtaaaa atgagtcatt tgtttaaaca atctttcatg
3121 tcttgtcata caaatttata aaggtctgca ctcttttatc tgtaattgta attccaaaat
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(2) INFORMATION FOR SEQ ID NO:2718:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: _ base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2718

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(2) INFORMATION FOR SEQ ID NO:2719:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2719

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